ITAM
Integrated Training Area Management
QUALITY LANDS, QUALITY SOLDIERS
U.S. ARMY

NGB MACOM AGENDA

1000-1050 NGB ITAM Program Update

1050-1100 NGB GIS Program Update

1100-1130 NGB RTLP Program Update

1130-1200 NGB Conservation Program Update

IWAM Johnson Room Tuesday 1300-1700

RFMSS Johnson Room Tuesday 1300-1700

ATTACC Forsyth Room Tuesday 1300-1500

ITAM Program Management Review

Program Manager
Mr. Joe Norberg
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Program Coordinator
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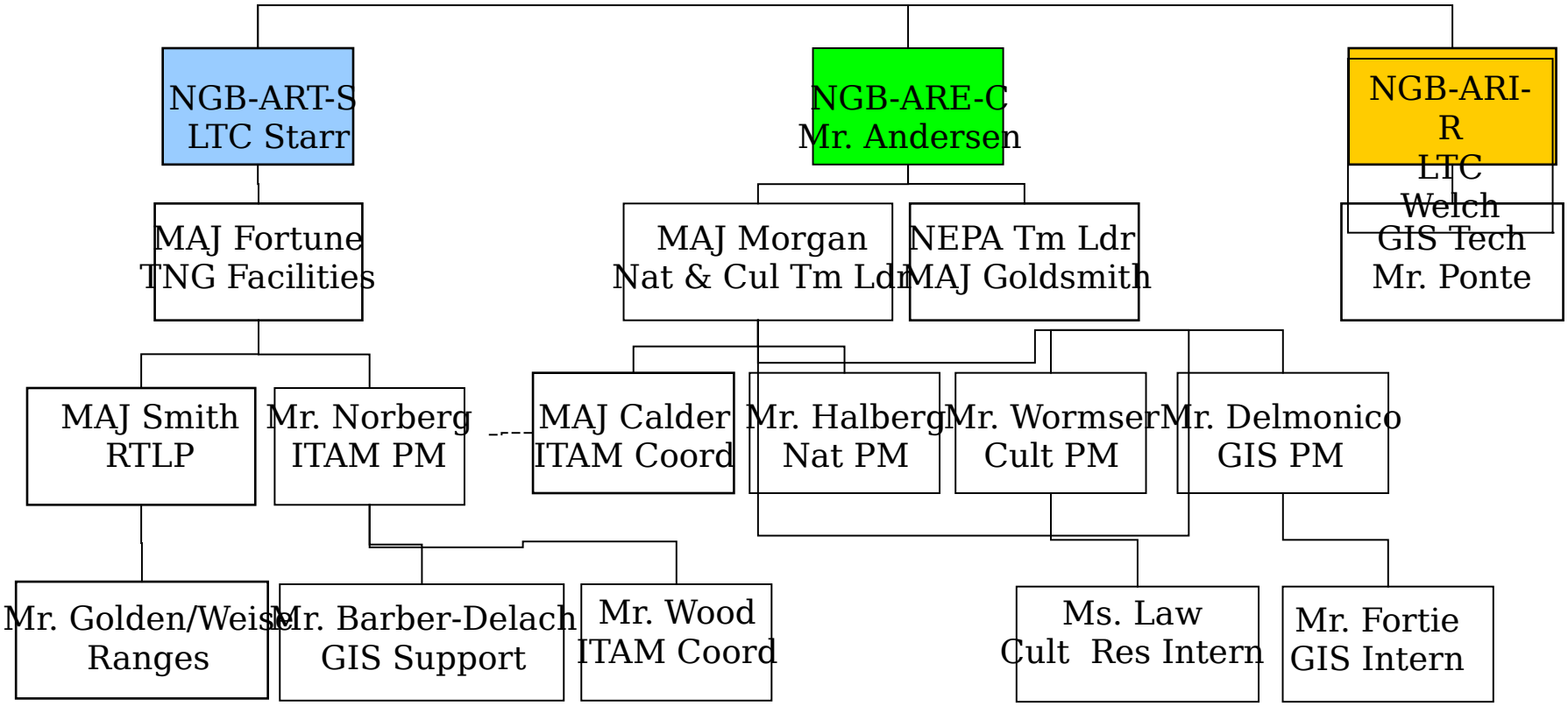
ITAM
NGB Organization

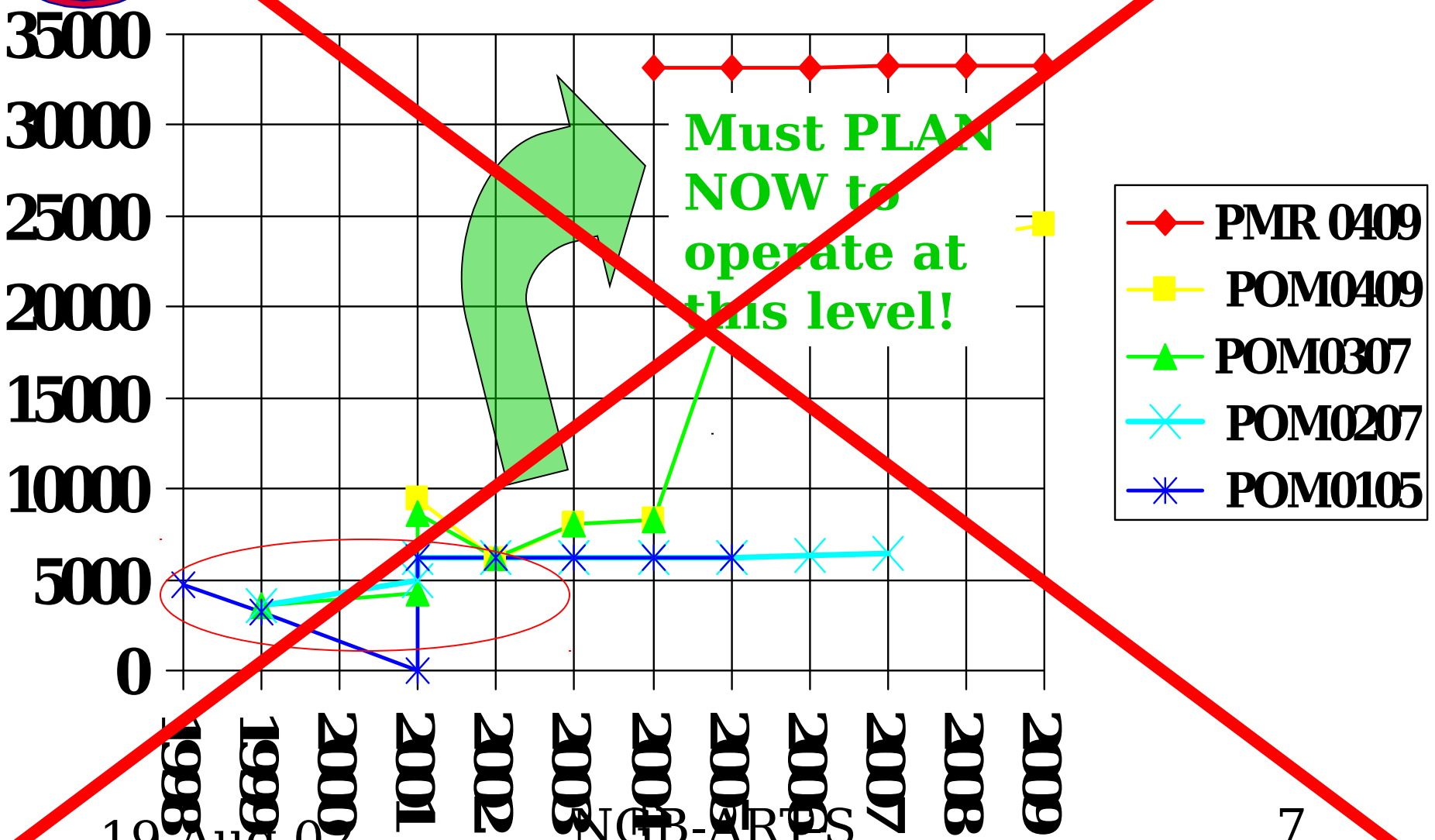


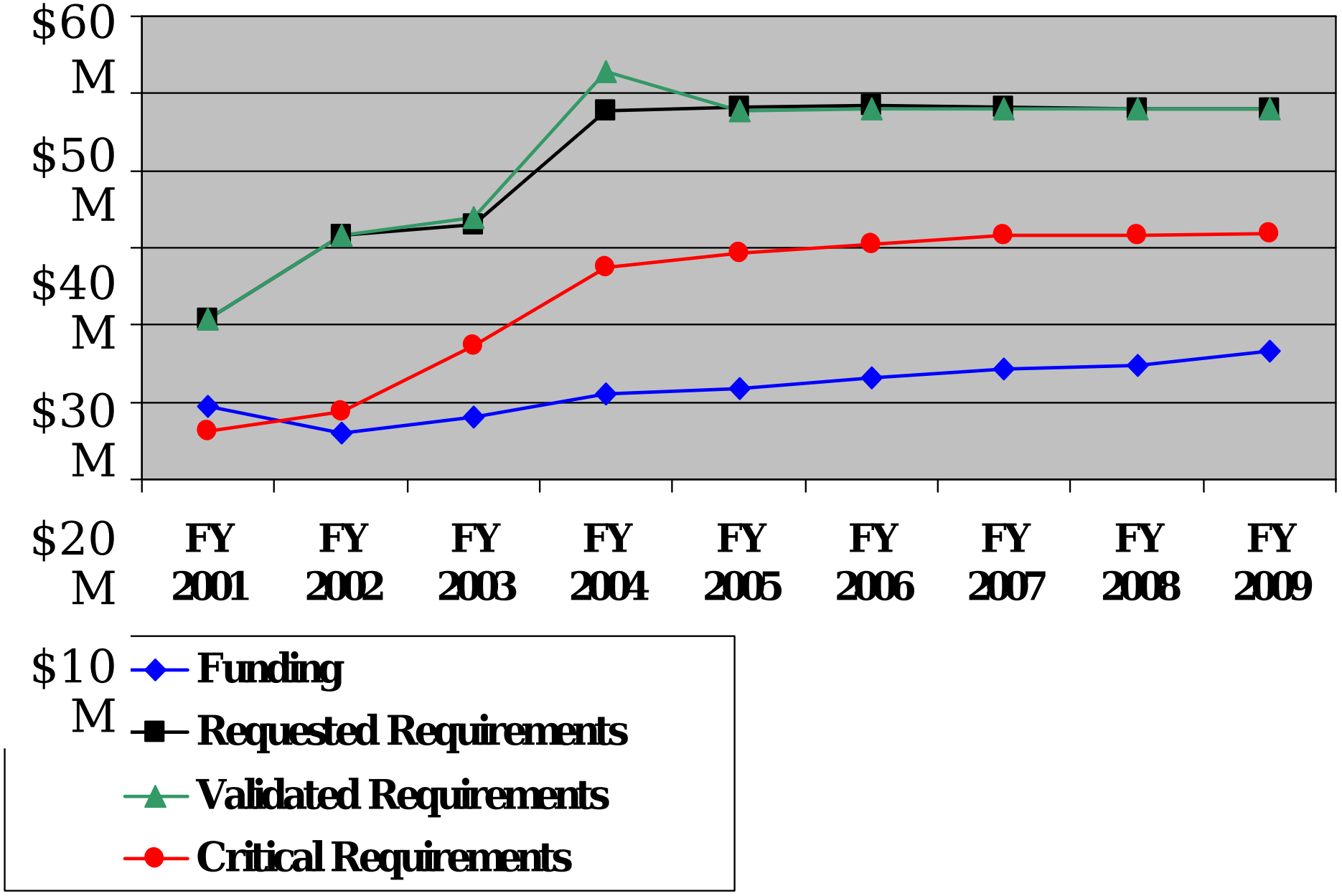
ITAM Funding

FY99	**$3.2M**
FY00	**$5.0M**
FY01	**$8.6M**
FY02	**$7.56M**
FY 03	**$8.11M**
FY 04	**$11.1M**

PROPOSED ITAM FUNDING

PROPOSED ITAM FUNDING



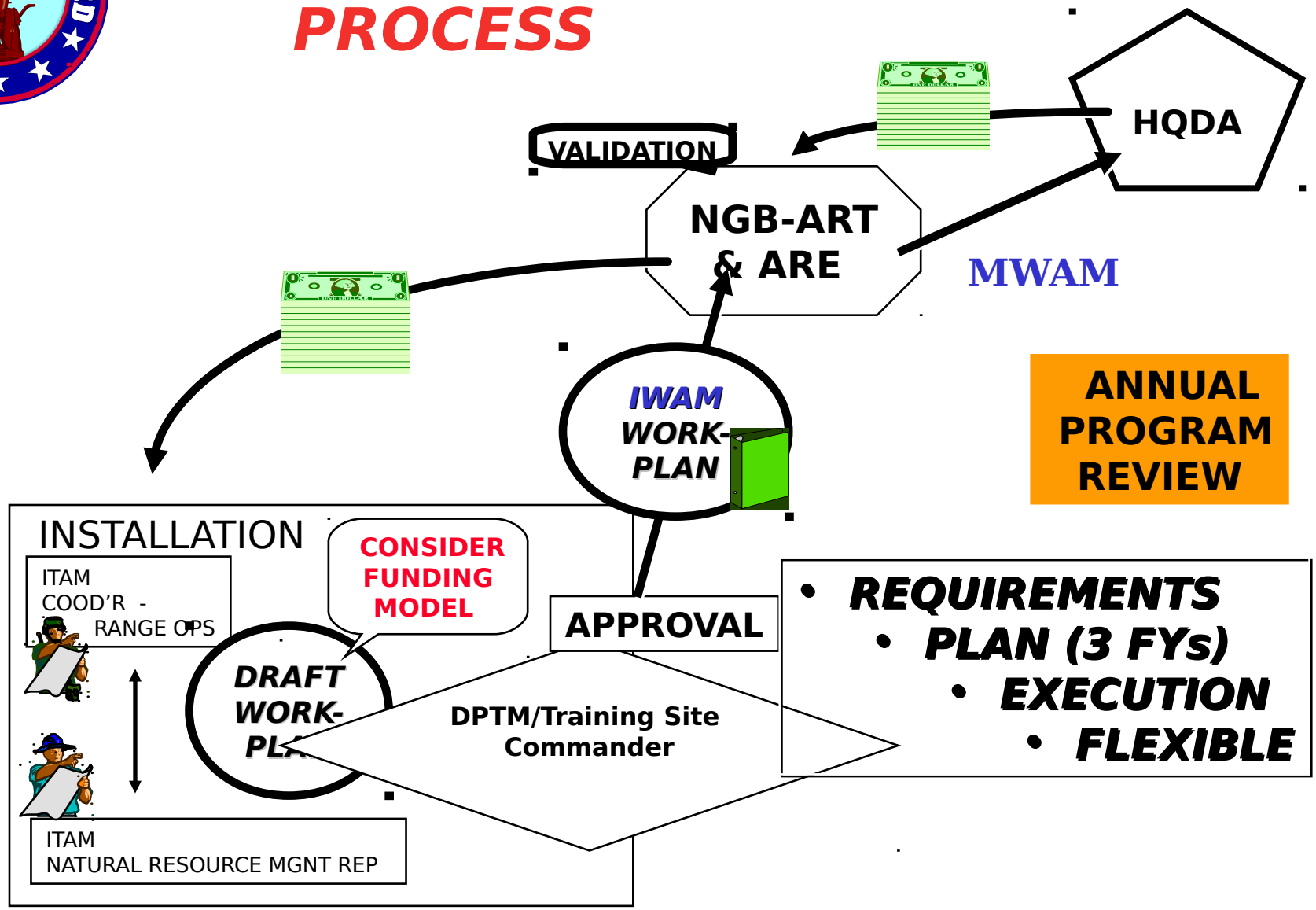

$60 M
$50 M
$40 M
$30 M
$20 M
$10 M
FY 2001
FY 2002
FY 2003
FY 2004
FY 2005
FY 2006
FY 2007
FY 2008
FY 2009
Funding
Requested Requirements
Validated Requirements
Critical Requirements

Program Funding

	FY 2001	FY 2002	FY 2003	FY 2004
Funding (Millions $)	6.110	6.110	8.115	11.112

	FY 2005	FY 2006	FY 2007	FY 2008
Funding (Millions $)	11.720	13.148	14.246	14.761

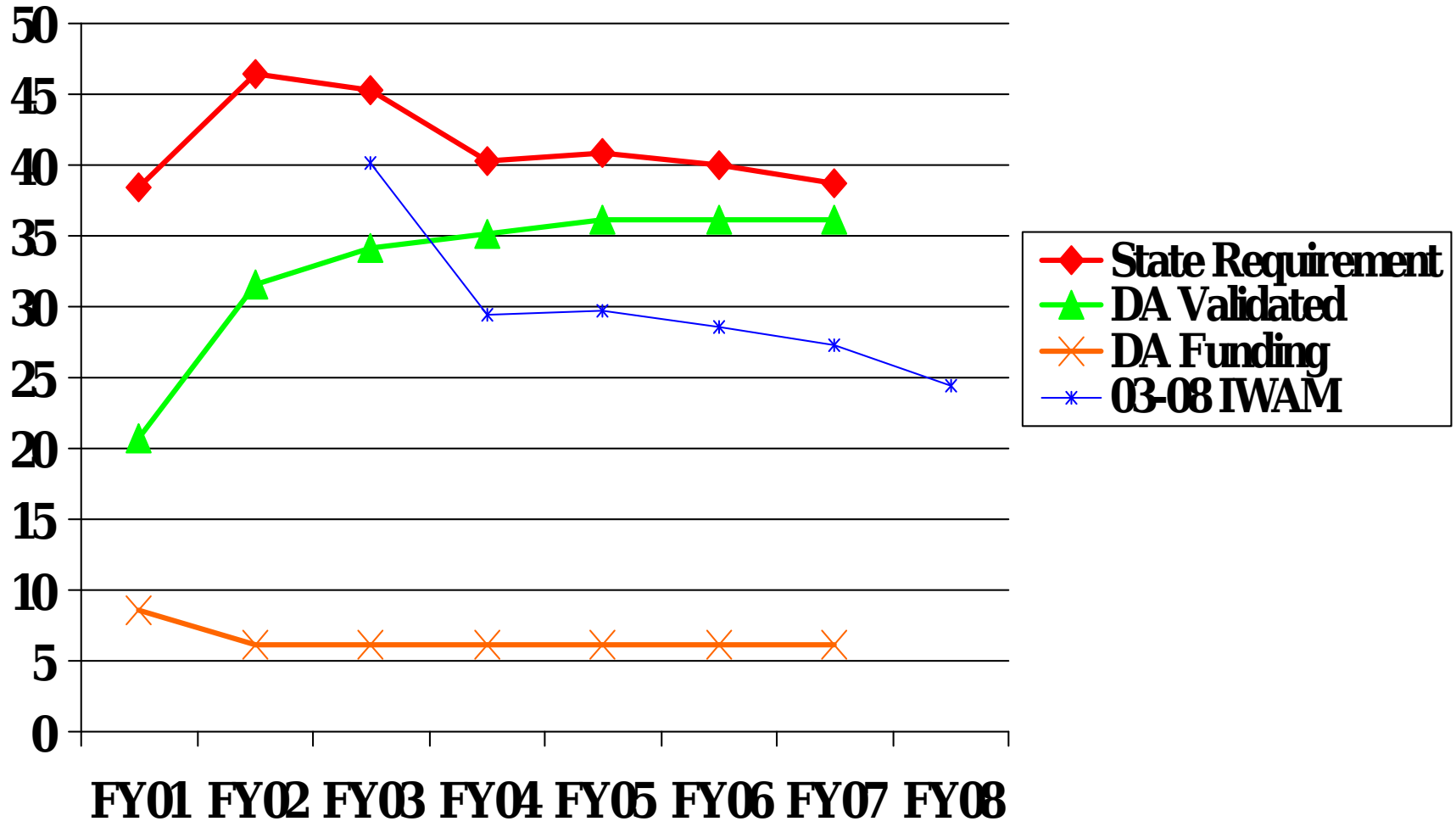
WORKPLAN PROCESS



IWAM Build

- Completed IWAM due to NGB **15 Jan 04**
- ATSC has a contract for Web Version ???
  - But no Maintenance Contract
  - ATSC POC Mr. Larry Jantz (757) 878-3090
- Projects for **FY 04-09** need to:
  - Be detailed
  - Follow Appendix G & H of ITAM Procedural Manual
  - Coordinate with other staff / ask for needs

FY 03-08 IWAM Submission



ANNUAL FUNDING GUIDANCE

FY 2003 ITAM (TATM) PRELIMINARY ANNUAL FUNDING GUIDANCE (24 MAY 02)

ST	INSTALLATION	CAT	FY 03 PAFG	APPN IWAM PROJECTS/DESCRIPTION
AK			$21,000	
	STEWART RIVER	IV		AKSR-0305 1K, AKSR-0319 20K
AL			$285,000	
	McCLELLAN	II		ALMC-0301 140K, ALMC-0303 48K, ALMC-0305 12K, ALMC-0009 3K, ALMC-0313 2K
	EGLIN	III		ALEGRU-0001 30K, ALEGPA-0001 10K, ALEG-0007 40K
AR			$540,000	
	CHAFFEE	I		ARCH-0001 43K, ARCH-0065 160K, ARCH-0006 100K, ARCH-0040 50K, ARCH-0026 10K, ARCH-0003 20K
	ROBINSON	III		ARRO-0009 25K, ARRO-0003 10K, ARRO-0010 15K, ARRO-0024 50K, ARRO-0002 12K, ARRO-0010 15K
				ARRO-0031 2K, ARRO-0032 28K
AZ			$95,000	
	NAVAJO	III		AZCN-0308 9K, AZCN-0305 15K, AZCN-0302 4K, AZCN-0306 3K
	FLORENCE	IV		AZFL-0305 36K, AZFL-0314 28K
CA			$405,000	
	ROBERTS	II		CACR-0028 20K, CACR-0029 10K, CACR-0052 5K, CACR-0056 20K, CACR-0062 100K, CACR-0065 40K
	SAN LUIS OBISPO	II		CACR-0012 5K
				CASA-0034 12K, CASA-0037 30K, CASA-0018 43K, CASA-0029 100K, CASA-0024 20K
CT			$21,000	
	STONES RANCH	IV		CTSR-0301 20K, CTSR-0812 $700, CTSR-0814 $300
FL			$220,000	
	BLANDING	II		FLBL-0023 7K, FLBL-0024 46K, FLBLAP-0001 2K, FLBLAP-0002 2K, FLBLAP-0006 15K,
				FLBLAP-0014 5K, FLBLAP-0015 5K, FLBLAP-0020 12K, FLBLAP-0022 20K, FLBL-0025 50K,
				FLBLAP-0016 2K, FLBLAP-0017 2K, FLBLAP-0018 2K, FLBLAP-0019 5K, FLBL-0021 10K
				FLBL-0003 1K, FLBL-0005 1K, FLBL-0006 3K, FLBL-0020 5K, FLBL-0032 9K, FLBL-0032 5K
				FLBL-0019 5K, FLBL-0031 5K, FLBL-0007 1K
HI			$103,000	
	KEAUKAHA	III		HIKA-0014 40K, HIKA-0006 30K, HIKE-0001 8.5K, HIKE-0026 6.2K, HIUK-0003 18.3K
IA			$36,000	
	DODGE	IV		IADO-0010 15K, IADO-0012 5K, IADO-0014 10K, IADO-0018 6K
ID			$325,000	
	ORCHARD (GF)	I		IDOR-0001 40K, IDOR-0037 30K, IDOR-0018 20K, IDOR-0020 25K, IDOR-0022 10K, IDOR-0024 40K,
				IDOR-0025 15K, IDOR-0027 20K, IDOR-0028 13K, IDOR-0029 4K, IDOR-0033 107K, IDOR-0006 1K
IL			$21,000	
	MARSEILLES	IV		ILMA-03-1A 10K, ILMA-03-001 11K,
IN			$186,974	
	ATTERBURY	II		INAT-0031 25K, INAT-0038 40K, INAT-0010 $86,974, INAT-0012 35K
KS			$21,000	
	SMOKEY HILLS	IV		KSSM-0021 5K, KSSM-0014 10K, 1KSSM-000 6K
KY			$95,000	
	WENDELL FORD	III		KYWF-0001 24K, KYWF-0004 7K, KYWF-0006 19K, KYWF-0008 14K, KYWFAR-0001 3K,
				KYWFAR-0002 3K, KYWF-0002 20K, KYWF-0005 5K

				NG2 FUNDED PROJECTS
	NG2 Account			
			$200,000	Program Technical Support/Management by GIS Mngr and ITAM Asst Coordinator
			$121,200	ITAM Program Management
			$43,800	Centralized GIS Training of POTO/Trng Site/RC Personnel
			$68,000	State & RC GIS Software & Hardware Maintenance/Support
			$1,000,000	Erosion Control, Land Rehabilitation and Maintenance Support/Equipment
			$1,433,000	
				Monthly NG2 Spend Plan
			OCT	$200,000 Prog Tech Supt/Mngmt by GIS & Asst ITAM Coordinator (Contract Trigger); $10,100 ITAM PM
			NOV	$10,100 ITAM PM; $500,000 Erosion Cntrl, Land Rehab & Maint Spt/Equip, (TCAC Decision Trigger); $38,000 GIS Software/Equiments (GISAC Plan Trigger)
			DEC	$10,100 ITAM PM; $43,800 GIS Training (Annual Training Plan Decision Trigger); $30,000 GIS Software/Equipment (ART-S/Div Requirements Trigger); $500,000 Erosion Cntrl, Land Rehab & Maint Spt/Equip Central Equip Purchase(TCAC Decision Trigger)
			JAN	$10,100 ITAM PM;
			FEB	$10,100 ITAM PM;
			MAR	$10,100 ITAM PM;
			APR	$10,100 ITAM PM;
			MAY	$10,100 ITAM PM;
			JUN	$10,100 ITAM PM;
			JUL	$10,100 ITAM PM;
			AUG	$10,100 ITAM PM;
			SEP	$10,100 ITAM PM;
	Total NG2			**$ 1,433,000 Total NG2**
	TATM FY03 OMNG BUDGET SUMMARY			
	HQ TAX		**$43,026**	
	Total NG2		**$1,433,000**	
	Central Fund		**$6,638,974**	
	Total FY03 TATM PAFG		**$8,115,000**	
	PresBud 03 Lock		**$8,115,000**	

ITAM Installation Categories

ARNG Training Sites

Cat I 5/23

Cat II 8/21

Cat III 25/38

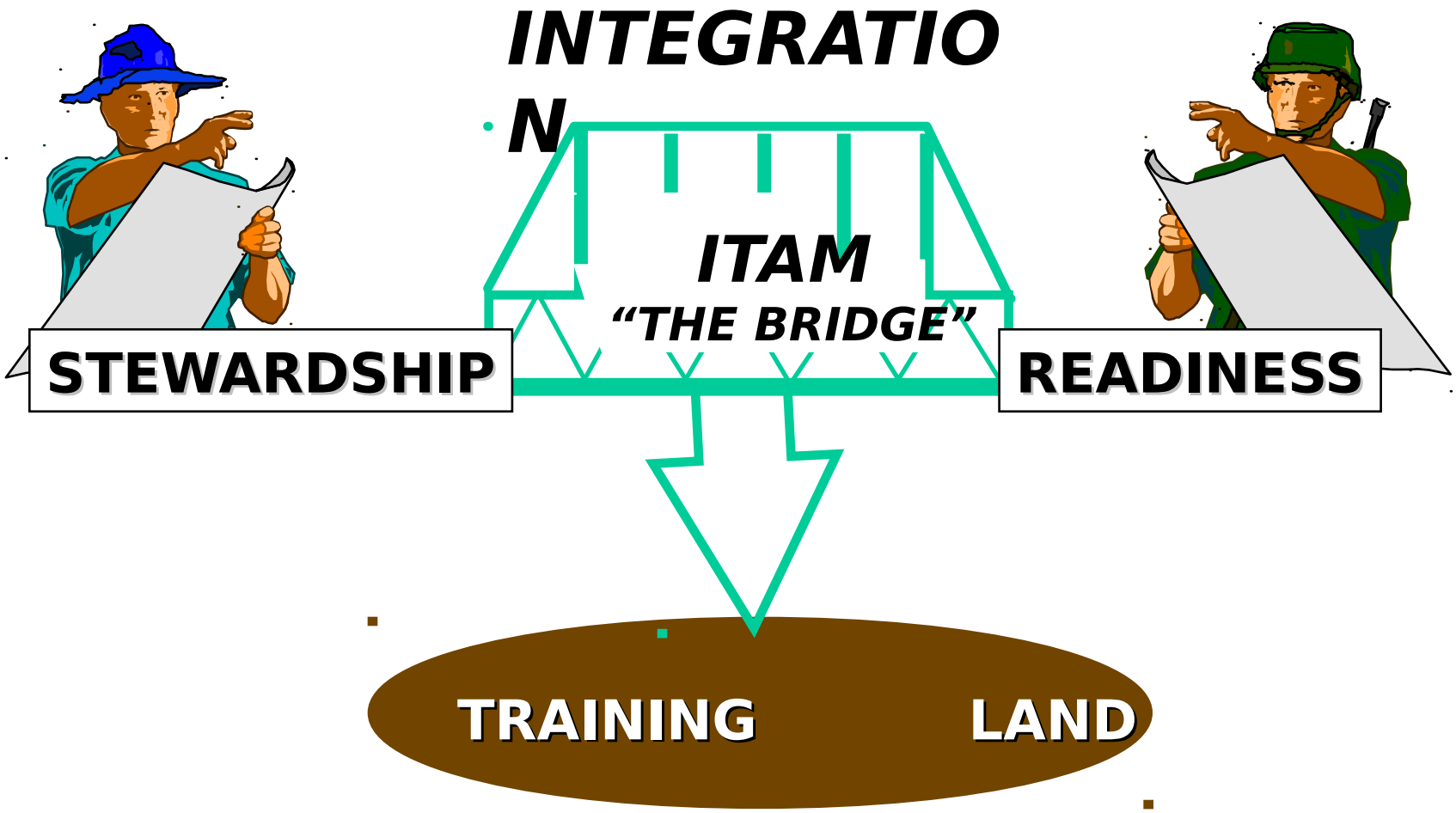
Cat IV 25/33

63/ 115 Sites

Opportunity to Change-March PMR

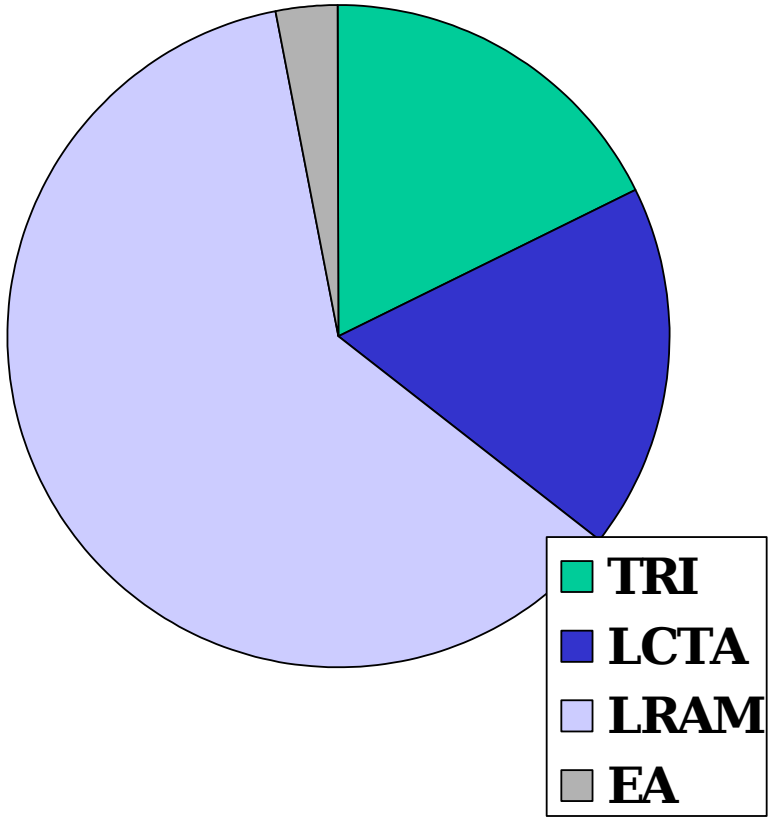
EXPECTATIONS

- Integrate other Staff Actions and Funding
- Detailed IWAM Submission
- Participation in TCAC & other committees
- Responsiveness to NGB Info Requirements
- Early Obligation of Funds(No Wait and Hold)
- Professional Articles/Presentations Discussion
- “The Bridge” Articles (Winter Edition/Dec-Jan)


INTEGRATIO
N
ITAM
"THE BRIDGE"
STEWARDSHIP
READINESS
TRAINING
LAND

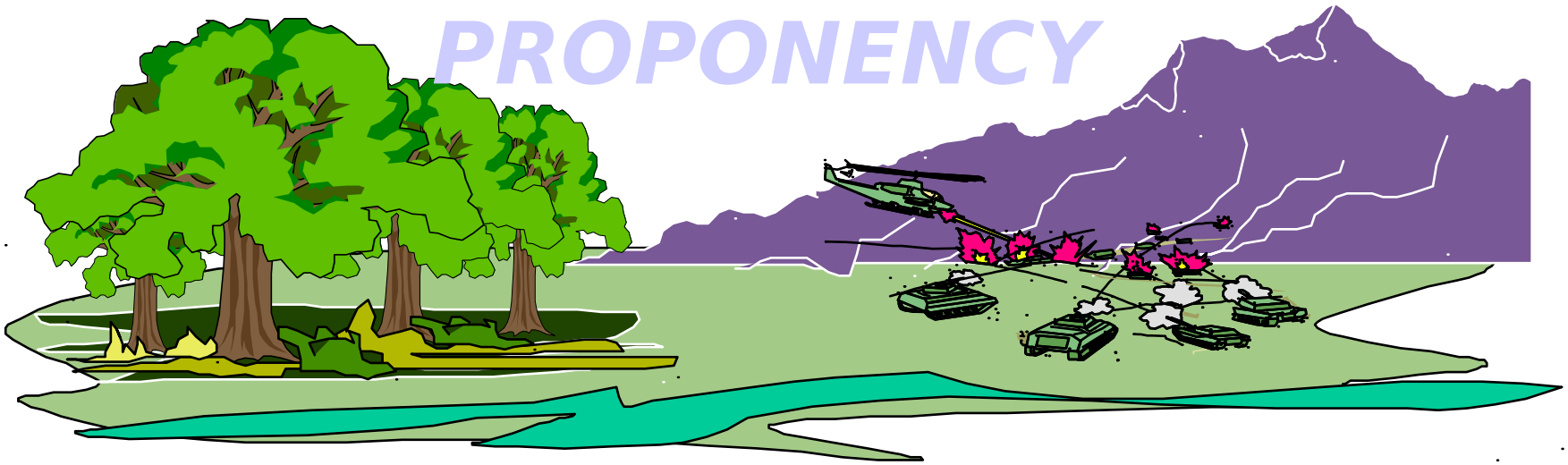
ITAM Obligation By Component

TRI	17
LCTA	18
LRAM	61
EA	4



INTEGRATED TRAINING AREA MANAGEMENT (ITAM)

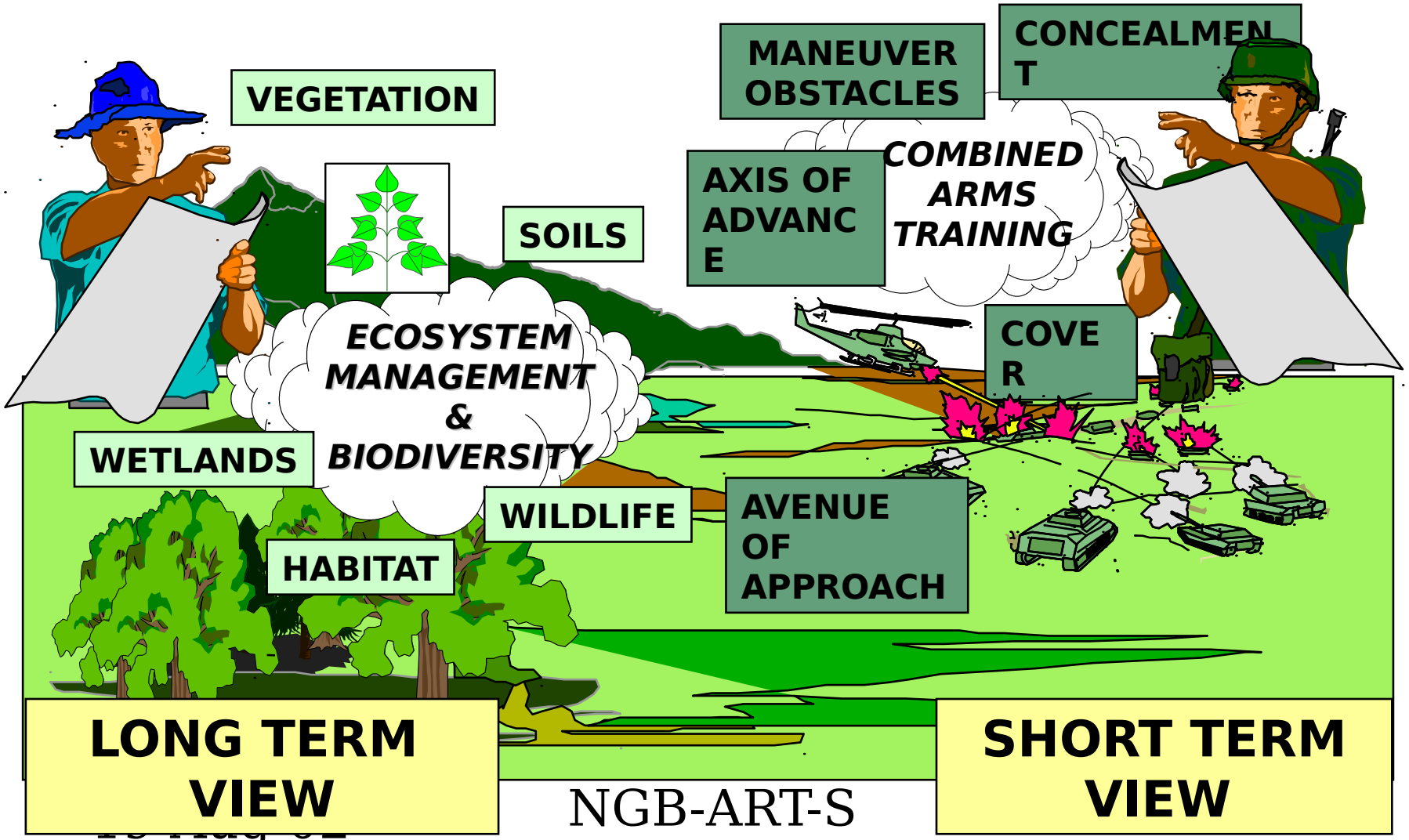
DCSOPS / NGB-ART PROPONENCY



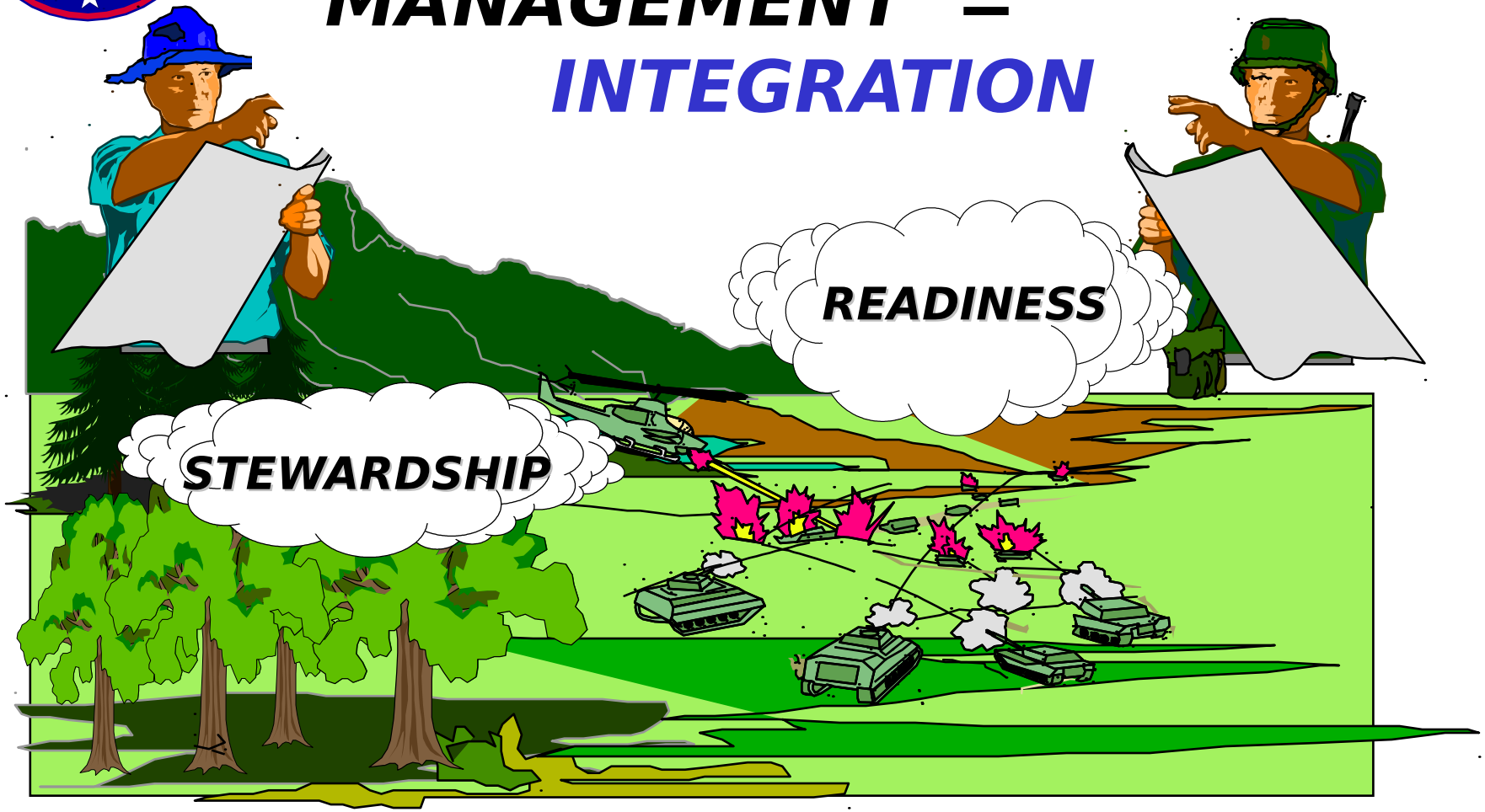
19 Aug 02

NGB-ART-S

ARMY LAND IS SEEN FROM 2 PERSPECTIVES



ARMY LAND MANAGEMENT = INTEGRATION



THE MISSION…

IS UNCOMPROMISING !

- ***UNITS MUST MAINTAIN <u>READINESS</u> TO ACCOMPLISH ASSIGNED MISSIONS***

- ***TRAINING IS A KEY MISSION <u>READINESS</u> ENABLER***
- ***LAND IS AN ESSENTIAL ARMY TRAINING ASSET***

- ***ITAM SUSTAINS THAT ESSENTIAL ASSET***

4 ITAM Components

1. LAND CONDITION TREND ANALYSIS (LCTA

2. TRAINING REQUIREMENT INTEGRATION (TRI)

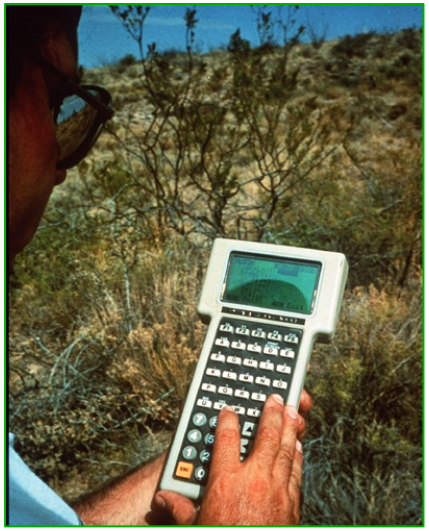
3. ENVIRONMENTAL AWARENESS (EA)

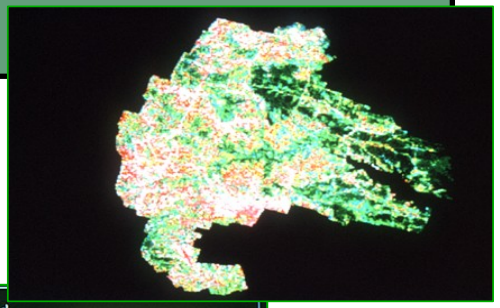
4. LAND REHAB MAINTENANCE (LRAM)

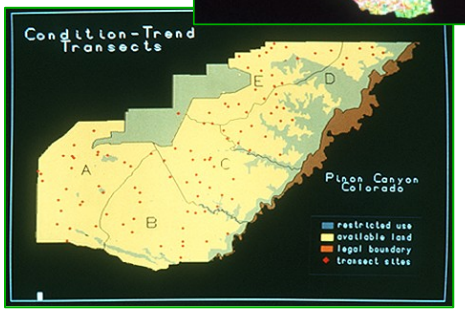
1. LAND CONDITION TREND ANALYSIS (LCTA)

- SURVEY ENVIRONMENTAL CONDITIONS
- MONITOR CHANGES TO THOSE CONDITIONS
- MAP ENVIRONMENTAL & TRAINING DATA

Using GEOGRAPHIC INFORMATION (GIS)



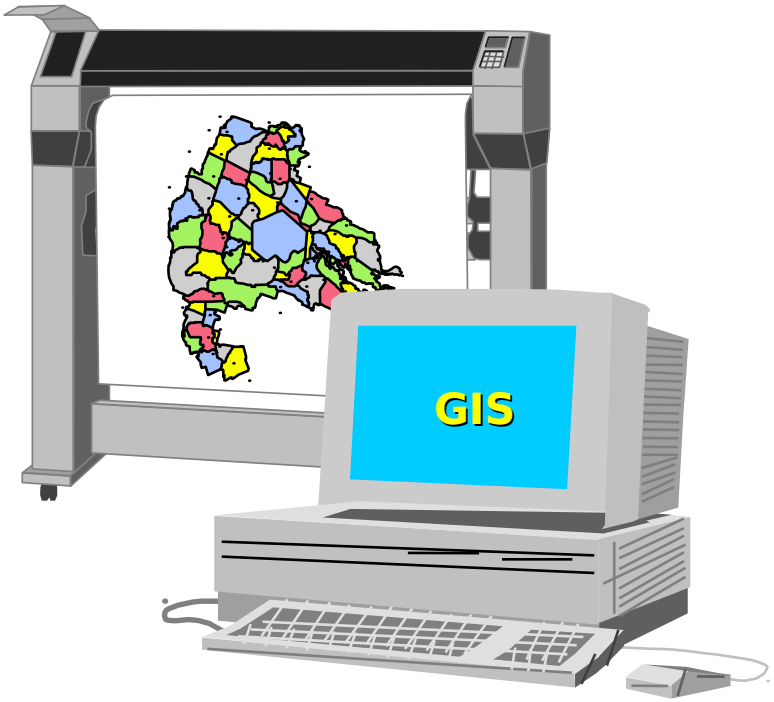




LCTA SPT CONTRACT

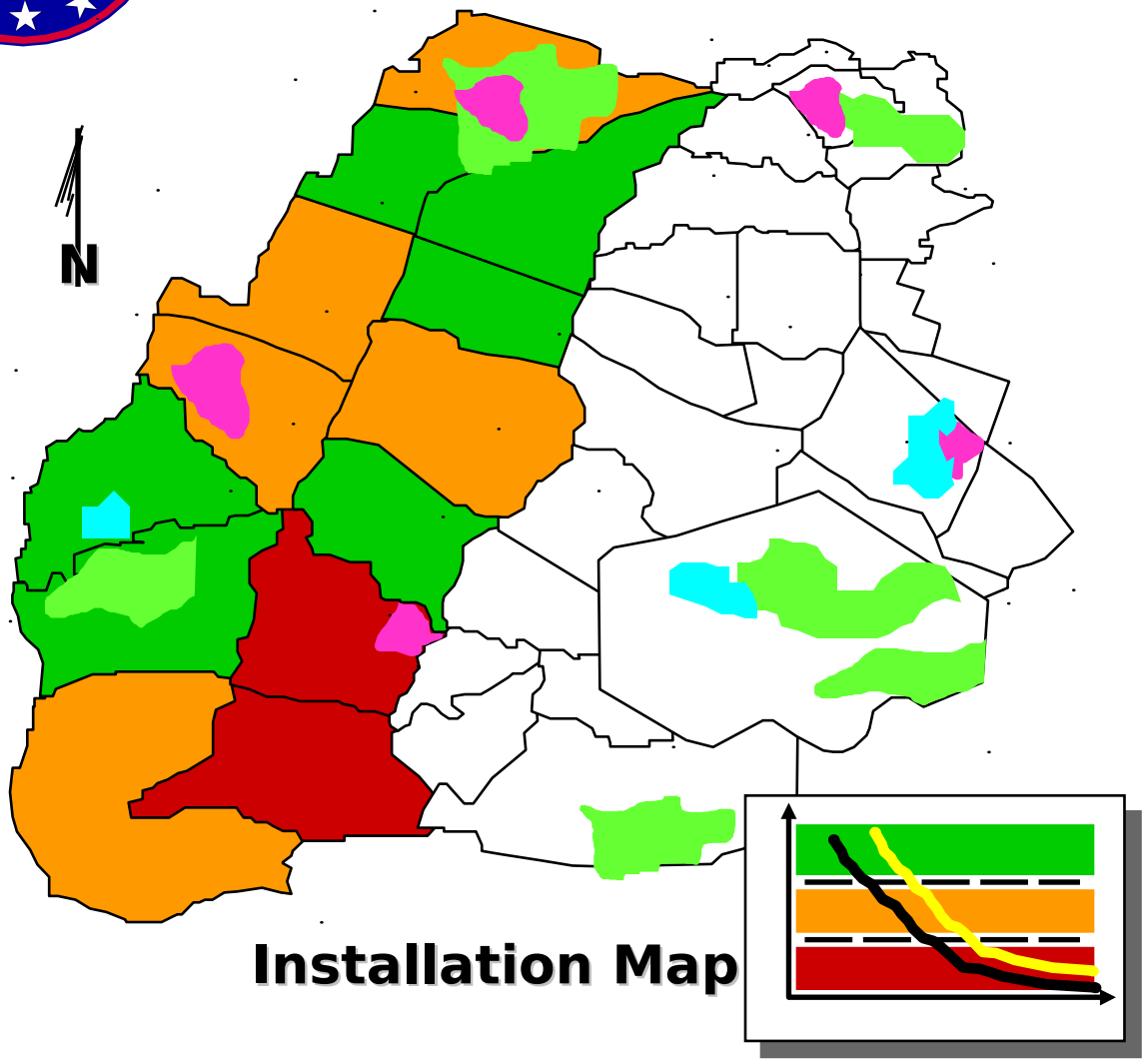
- New Support Contract 1 July 2002
  - LCTA Hotline (907) 491-2709
    - Mon - Fri 0830-1630 (MT)
  - LCTA Assistance Visits
    - Camp Shelby, MS
    - Camp Navajo & Florence, AZ
    - Fort Harrison & Limestone, MT
    - Additional Requests: NE, MN, TN, IN, PA, SC
- Data Objective Must Be Focused
  - Not for random sampling

Geographic Information System (GIS)



- **Electronic Map Displays**
  - **Natural Features**
  - **Environmental Factors**
  - **RFMSS Data**
  - **Carrying Capacity**
- **Combined Training, Install and Environmental Effort**

Geographic Information System (GIS)



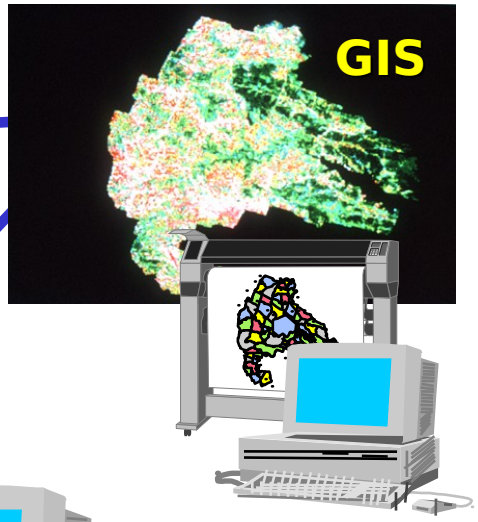
Map Layers

- Forest
- Historic
- Vegetation
- TES Habitat
- Wetland
- Roads
- Water
- Elevation
- Electric
- Repair Sites
- RFMSS
- Capacity

CARRYING CAPACITY - RFMSS - GIS

PROVIDE A RESPONSIVE LAND MANAGEMENT SUPPORT SYSTEM FOR ITAM

ITAM



LCM Data Collection Status

Fort Blanding	Complete
Fort Indiantown Gap	Complete
Fort Pickett	Data Received
Fort Chaffee	Data Transfer In Progress
Fort Shelby	Data Transfer In Progress
Fort McClellan (Pelham Range)	No Progress

GIS Tracker Database

- GIS Regional Support Centers (RSCs) track GIS personnel, equipment, data for fully-supported ITAM installations (35 ARNG sites)
- NGB needs to track all ITAM sites (28 partially-supported sites) and all additional States/Territories GIS staff and equipment
- Info is collected by State/Installation personnel in Excel spreadsheet and input into Tracker by RSC or MACOM staff

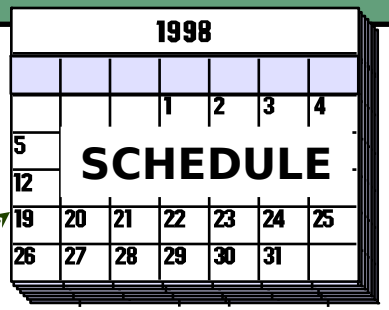
Requested GIS Tracker info will include:

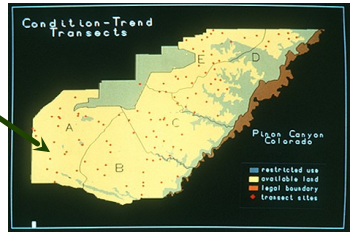
- GIS personnel - anyone doing GIS (full or part time, Environmental & Training/Range)
- GIS equipment (Computer hardware specifications and software licenses)
- GIS Data Layers (aerial photography, other imagery, geographic data layers)

2. TRAINING REQUIREMENT INTEGRATION (TRI)

- KNOW TRAINING REQUIREMENTS FOR LAND & RANGES
- ASSESS LAND CONDITIONS
- SCHEDULE TRAINING EVENTS TO MINIMIZE ENVIRONMENTAL IMPACTS
- LOCATE TRAINING FACILITIES TO MINIMIZE ENVIRONMENTAL IMPACTS

RANGE OPERATIONS





LOCATE

MANPOWER

PERSONNEL AUTHORIZED

	Cat I	Cat II	Cat III	Cat IV
ITAM Coord	X	X	X	
LCTA Coord	X	X		
GIS Tech/Mngr	X	X		
LRAM Coord	X	X	_	-
	4	4	1	0
Installations	x 5	x 8	x 25	x 25
Total Pers	**77** =	20 +	32 +	25 +

0_____

ASSUMPTIONS

- ITAM Personnel Costs will be paid first no matter the budget
- NGB-ARE & T recognize need to increase workers at Training Sites (VENN, TATM, VSCW)
- NGB/TCAC considering methods to keep workers on Training Sites

Old Guys Still Rule

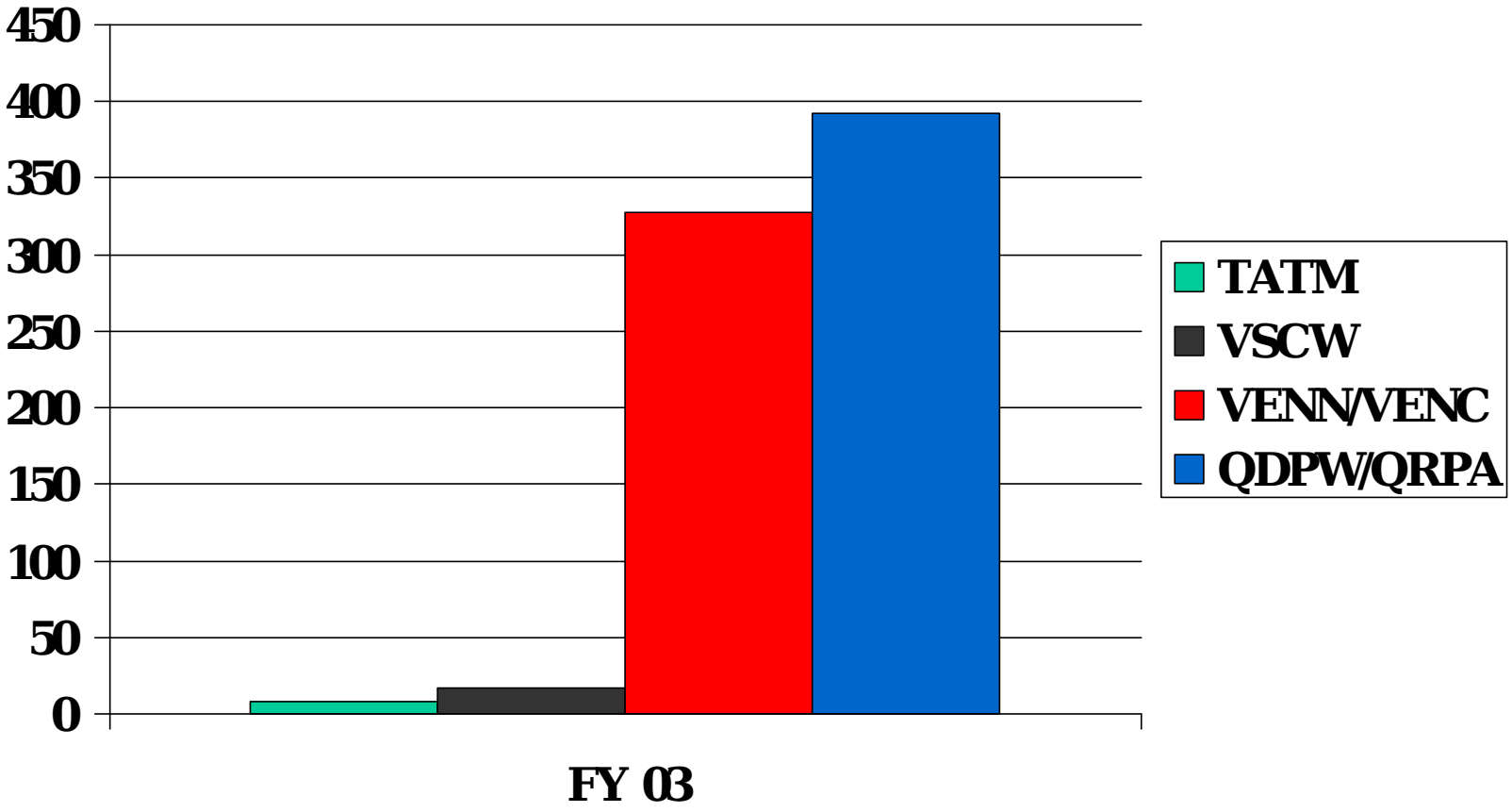
INTEGRATION

Program Funding

	FY 2001	FY 2002	FY 2003	FY 2004
Funding (Millions $)	6.110	6.110	8.115	11.112

	FY 2005	FY 2006	FY 2007	FY 2008
Funding (Millions $)	11.720	13.148	14.246	14.761

Integration of Funding

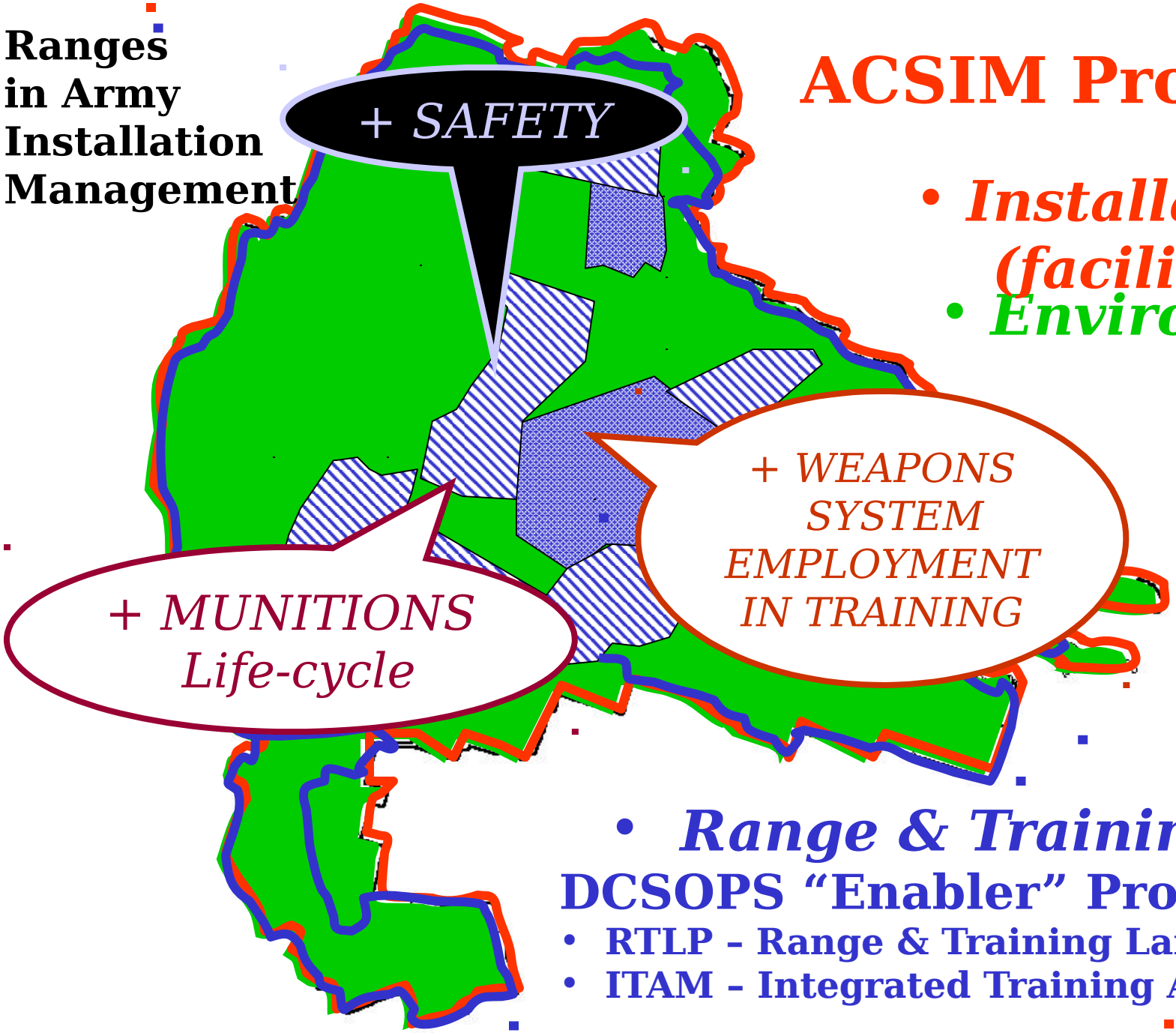


Training Land Accounts

Name	Div	MDEP	APPN	AMSCO	FY03 $
ITAM	ART	TATM	2065	121G12.E1-5	$8.6M
RTLP	ART	VSCW	2065	121G12C1&2	$10.2M
Conservation	ARE	VENN	2065	131G53.11	$27.5
Pol Prevention	ARE	VEPP	2065	131G54.11	$3.6
Compliance	ARE	VENC	2065	131G56.83	$139.4
RPOM Repairs Construction	ARI	QRPA QDPW	2065	132G76.	$ 327 M $ 65 M
Grants					

INTEGRATION is the HARDEST Thing We Do!

Ranges in Army Installation Management



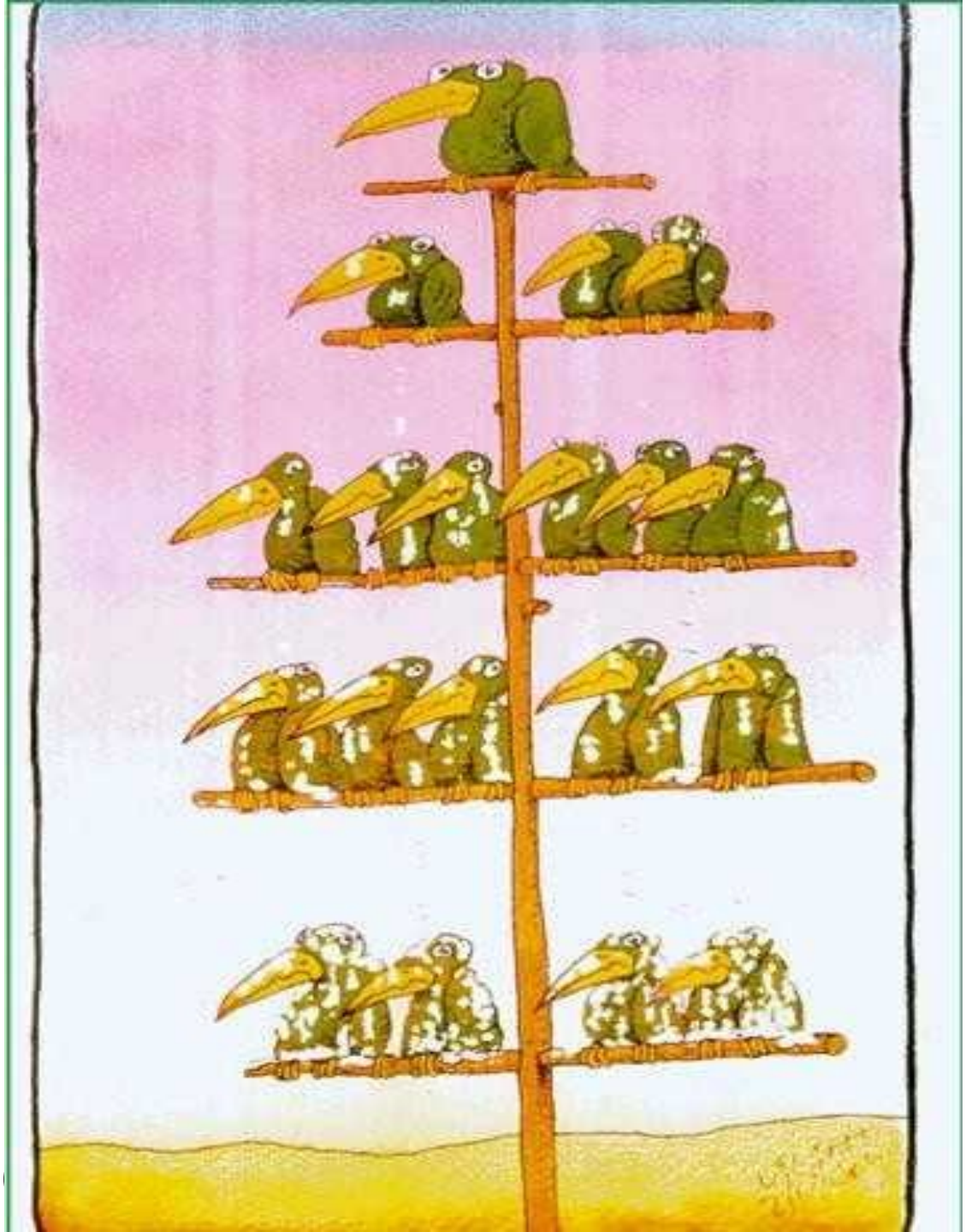
ACSIM Programs

- ***Installation (facilities)***
- ***Environment***

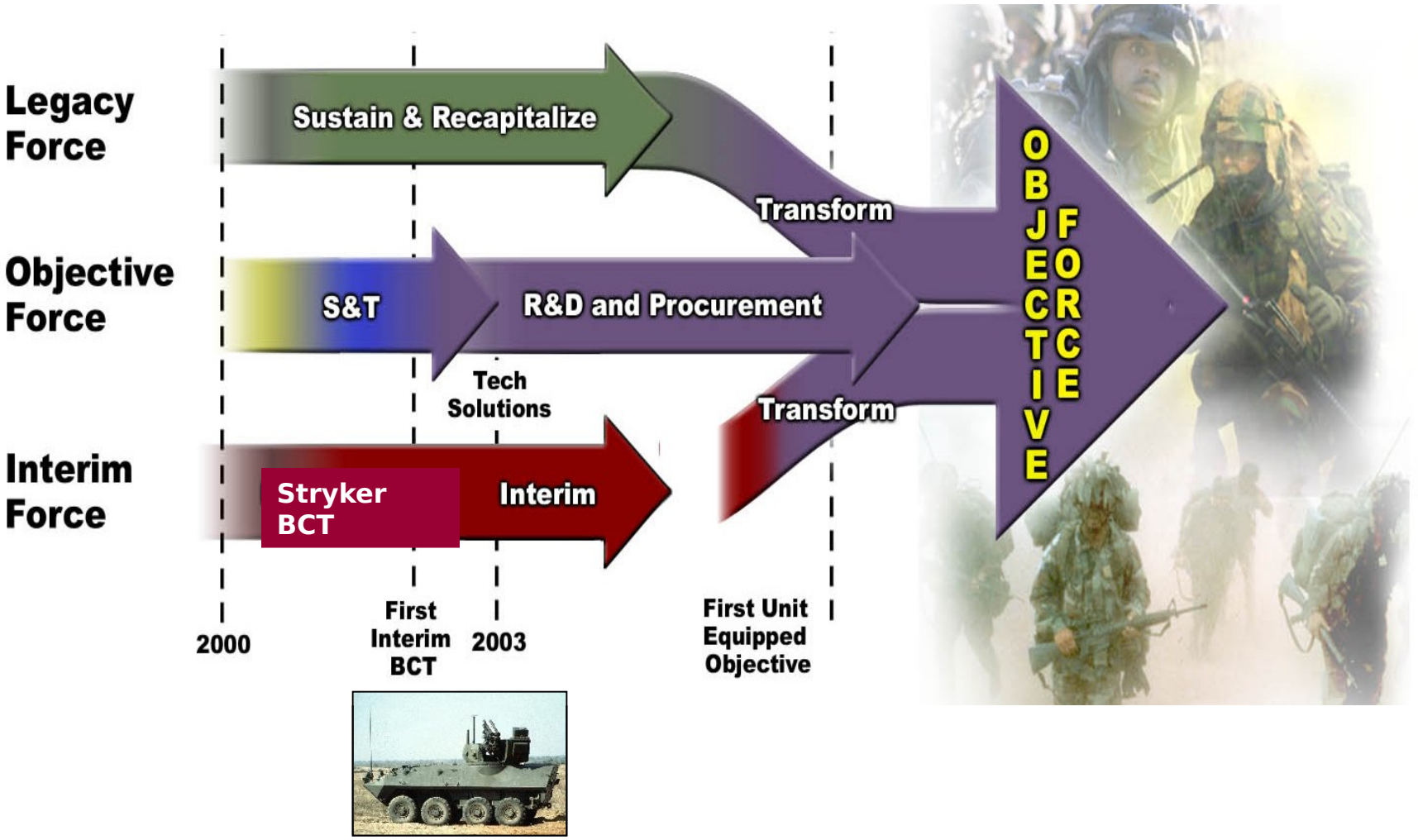
- ***Range & Training Land***

DCSOPS "Enabler" Programs

- **RTLP – Range & Training Land Program**
- **ITAM – Integrated Training Area Manag**

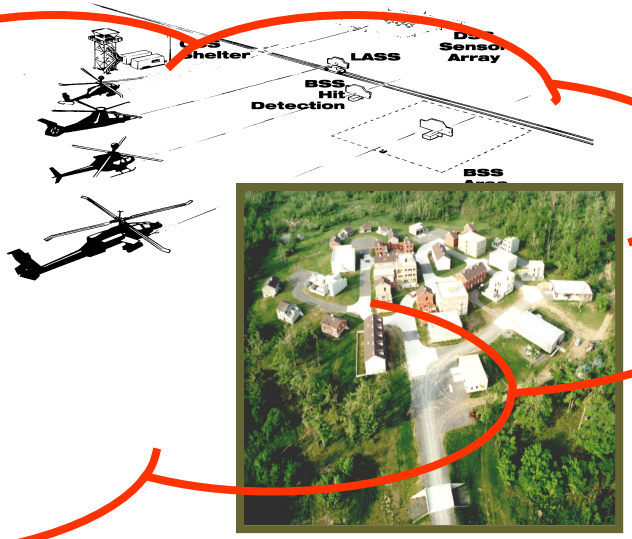


Army Transformation Concept

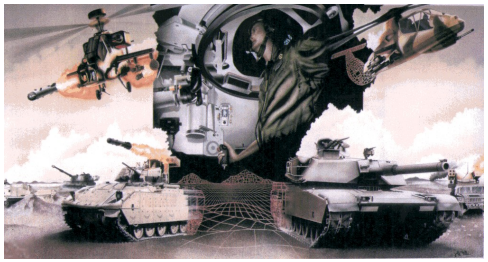


Live Training – On Ranges & Land

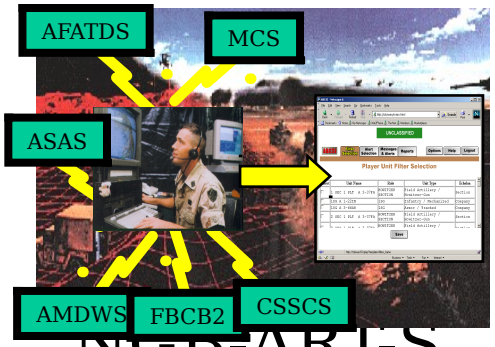
Live



Virtual

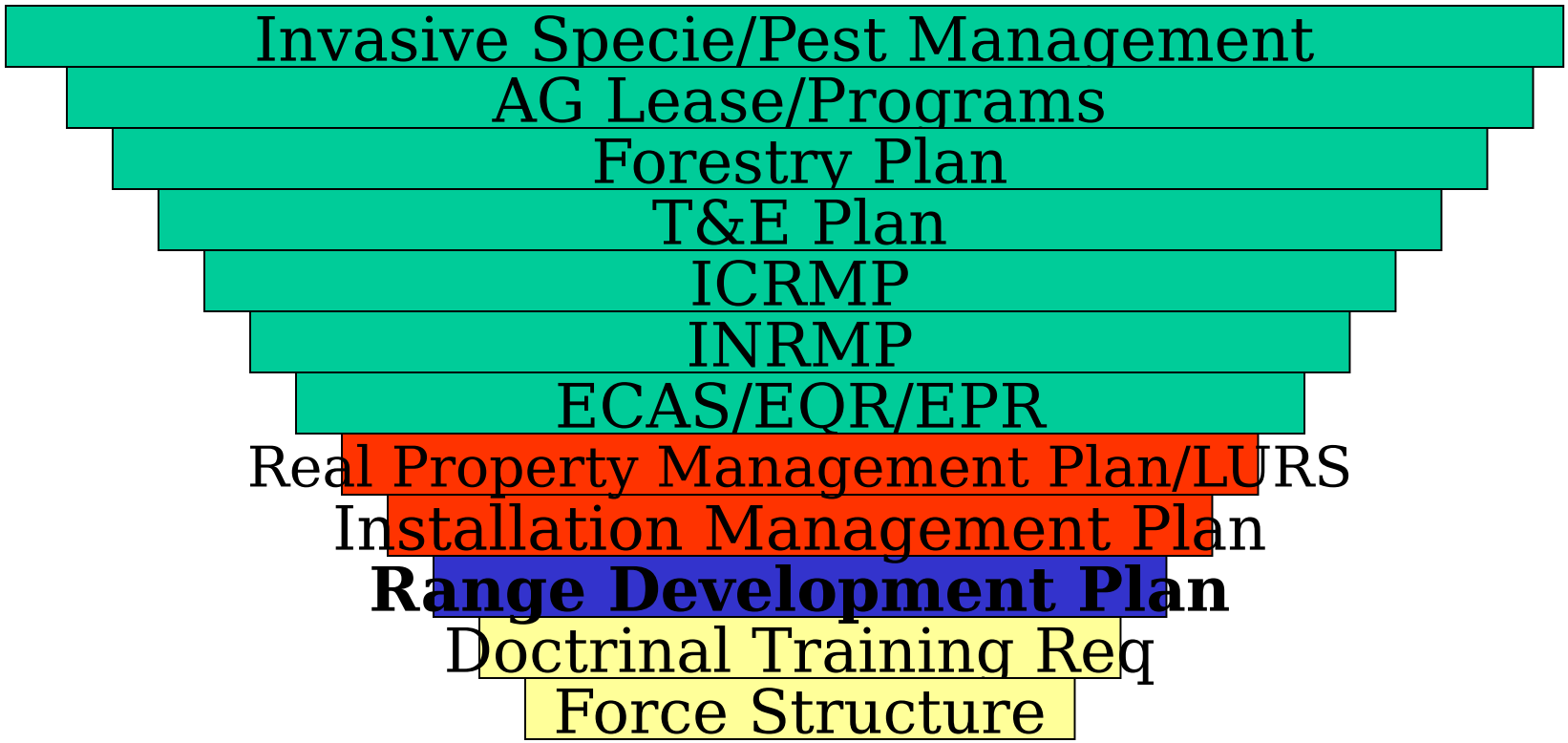


Constructive



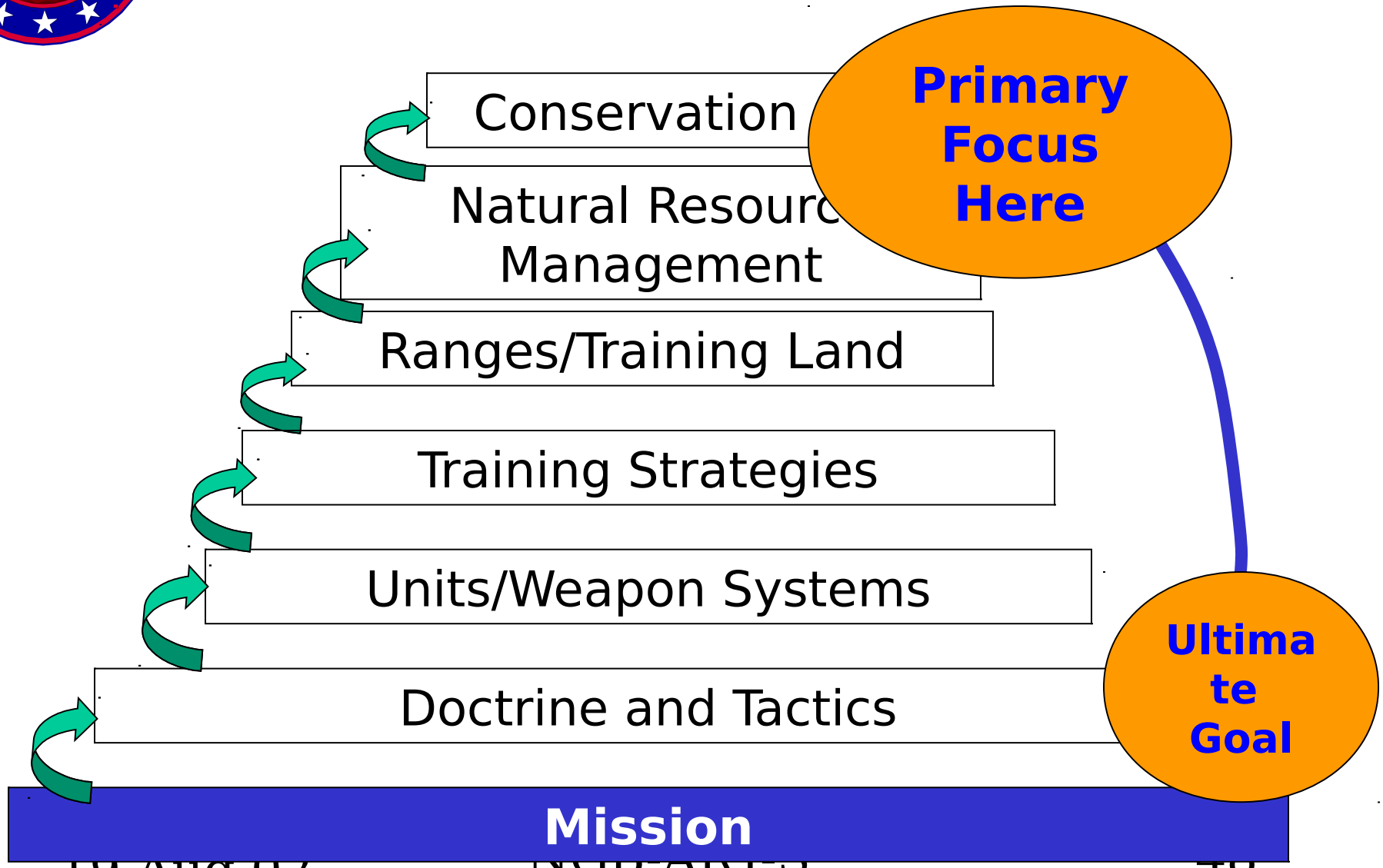
….Remains the most critical of Three Training Domains

Unity of Effort/Command



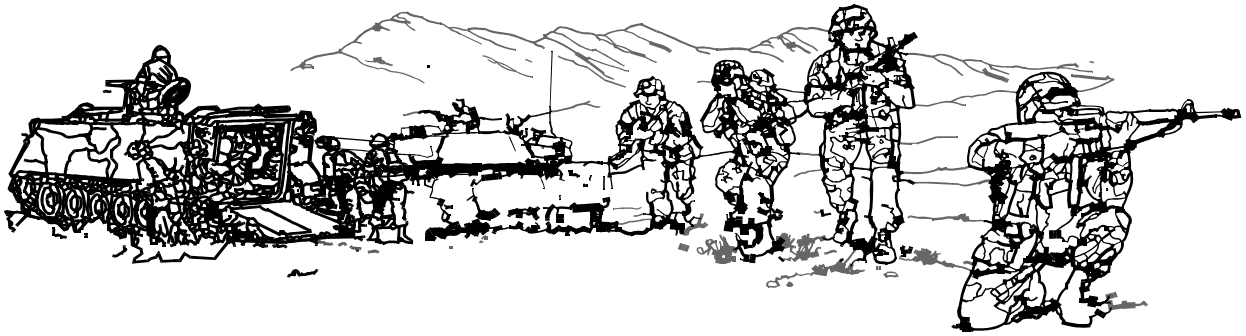
ALL STAFF PLANS NEED TO BE TRNG MSN/RDP BASED

The Army Mission: Foundation for Conservation



ITAM
LAND MANAGEMENT TECHNOLOGY

- Training Land Carrying Capacity
- Range Facility Management Support System
- Geographic Information System

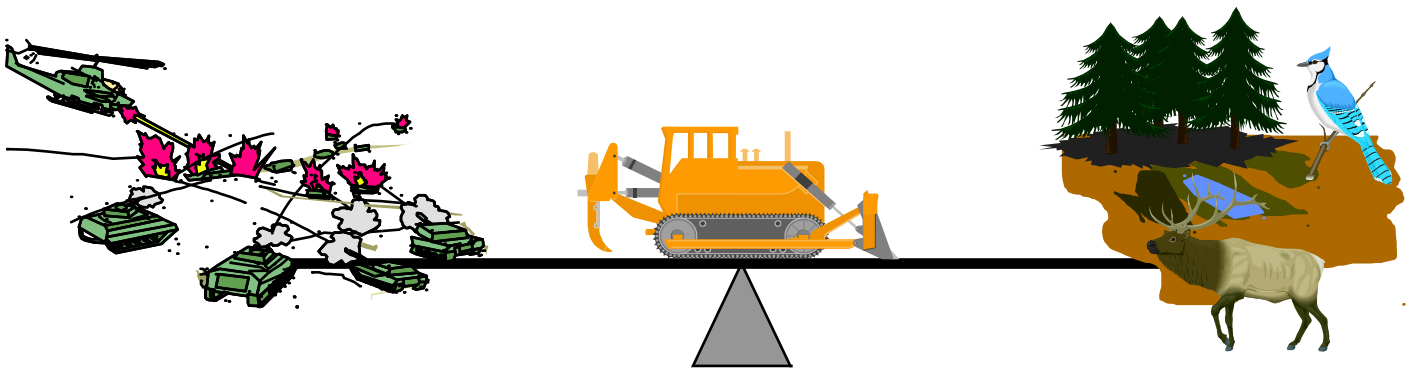


TRAINING LAND CARRYING CAPACITY

THE AMOUNT OF TRAINING WHICH A GIVEN PARCEL OF LAND CAN ACCOMMODATE IN A SUSTAINABLE MANNER.

A BALANCE OF :

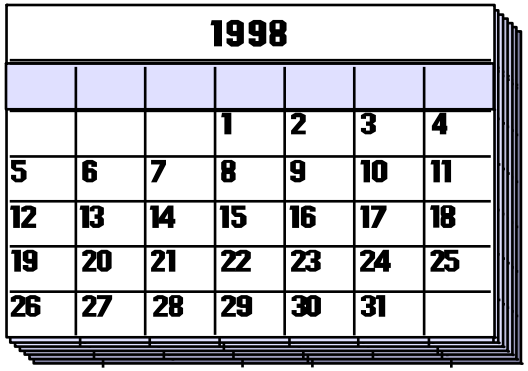
TRAINING USE, MAINTENANCE AND LAND CONDITION



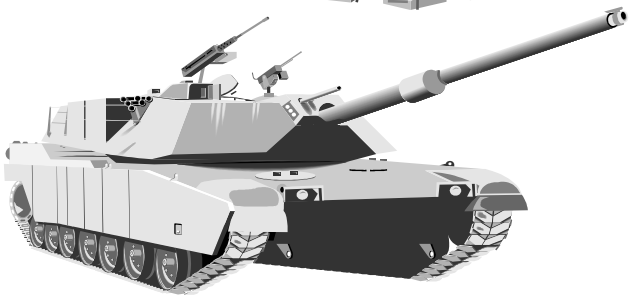
Range Facility Management Support System

(RFMSS)

- Scheduling
- Management
  - Operations
  - Maintenance



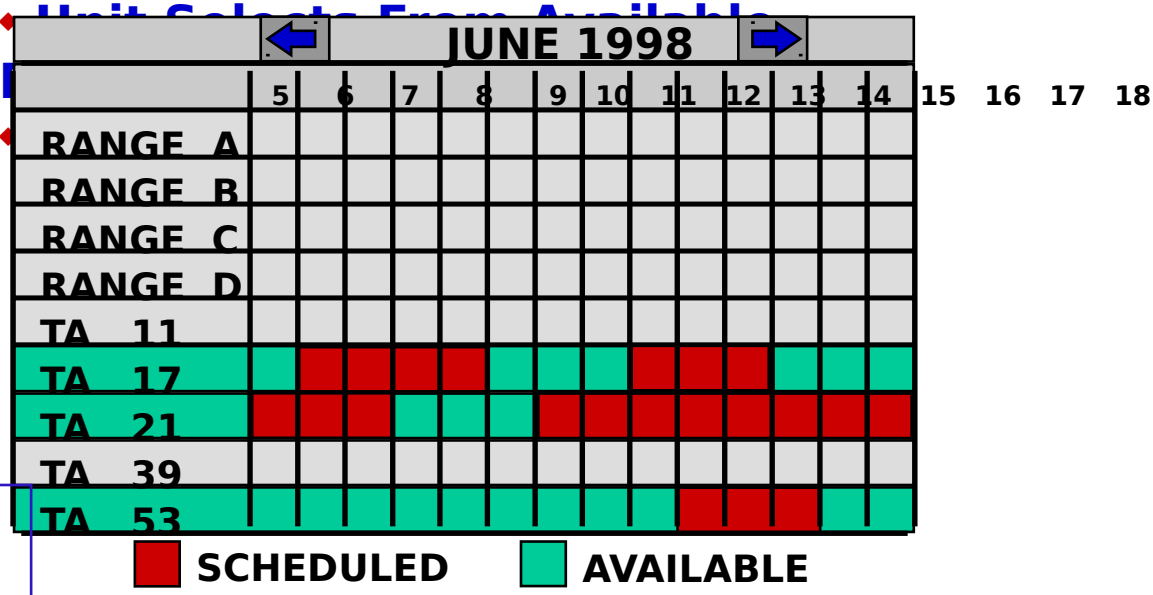
Management Support System (RFMSS)



Tank Company Field Training Exercise

Scheduling a Unit Training Event:

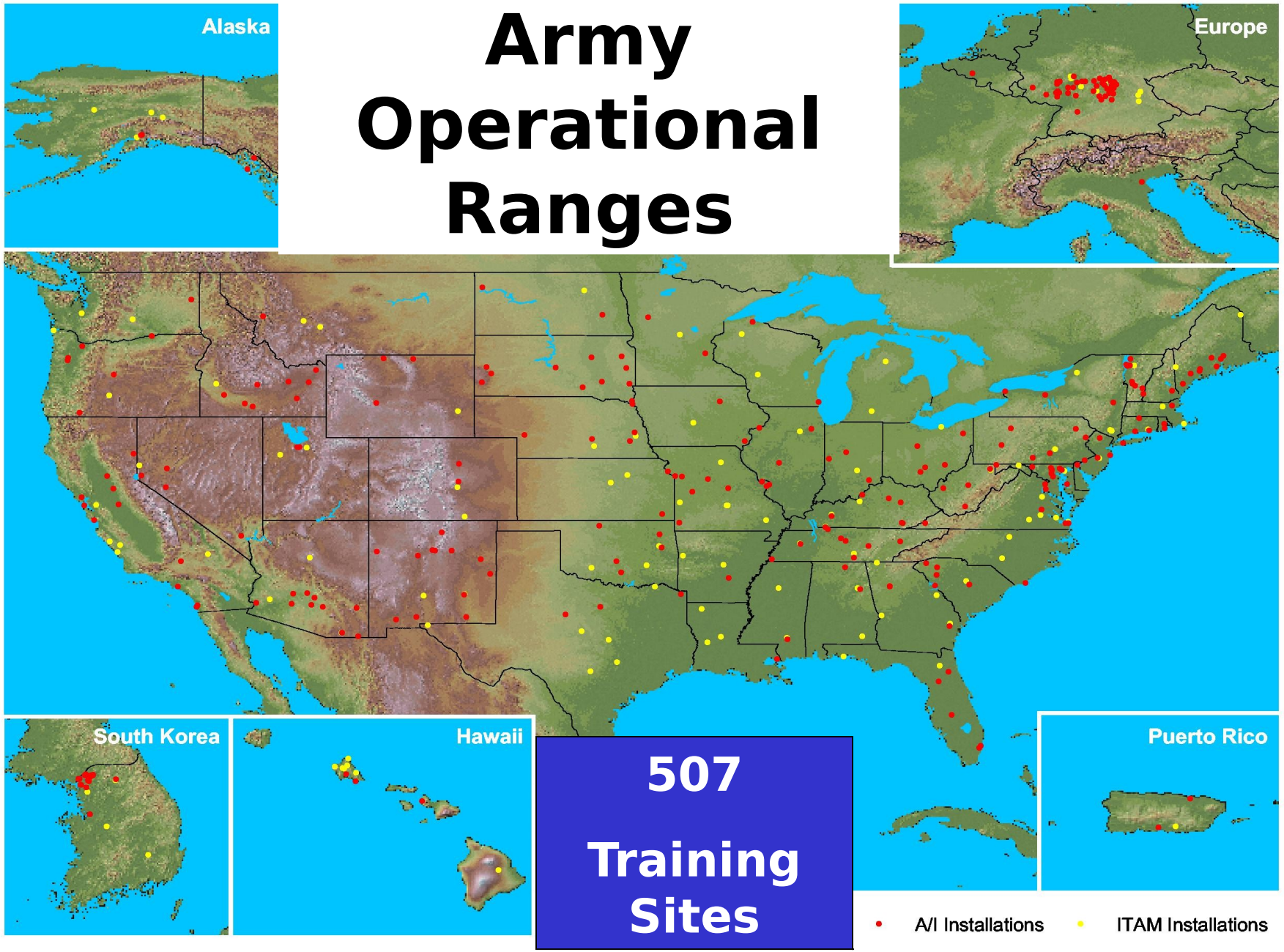
- Only Approved Areas Displayed
- Scheduled and Available Days Shown
- Unit Selects From Available



+ **Management:**
  - Historical Records (Utilization)
  - Reports (Ammunition)

A/I INVENTORY

- Inventory all Active and Inactive Ranges
  - Contract extended one Quarter/Phase -> Jul 02
  - Final Product Delivered Nov 02
  - All A/I Ranges have baseline GIS data
  - AEC Maintains Army Range Inventory Database
    - Update every 5 yrs
- Closed Range Inventory Continues
  - Declaration Window Closes 30 Sep 02
  - POC Mr. Brian Helmlinger, DAMO-TRS


Army Operational Ranges
Alaska
Europe
South Korea
Hawaii
Puerto Rico
507 Training Sites
A/I Installations
ITAM Installations

3. ENVIRONMENTAL AWARENESS (EA)

- PROVIDE COMMAND INFORMATION TO LAND USERS
- REDUCE IMPACTS TO THE ENVIRONMENT
- ELIMINATE AVOIDABLE DAMAGE

4. LAND REHABILITATION & MAINTENANCE (LRAM)

- REPAIR MANEUVER DAMAGE
- CARRY OUT PROJECTS TO PREVENT DAMAGE
- RECONFIGURE TRAINING AREAS TO SUPPORT TRAINING REQ'TS & PREVENT DAMAGE

ITAM Central Purchases

Gyro Tracs – 2	Skid Mount Pump Units – 10	Bobcat Loaders	
		1st – 11	2nd – 9(1)
Camp Ripley, MN	Ft McLellan, AL	Fort Chaffee, AR	Fort McLellan, AL
Fort Indiantown Gap, PA	Fort Chaffee, AR	Camp Obispo, CA	Camp Robinson, AR
(Fort Pickett, VA)	Camp Roberts, CA	Camp Blanding, FL	Camp Roberts, CA
	Camp Minden, LA	Camp Atterbury, IN	Wendal Ford, KY (Attachments Only)
	Camp Edwards, MA	Camp Ripley, MN	Bog Brook, ME
	Fort Shelby, MS	Fort Shelby, MS	Limestone Hills, MT
	Camp Grafton, ND	Camp Gruber, OK	McCrady, SC
	Camp Butner, NC	Camp Bowie, TX	Catoosa, TN
	Fort Pickett, VA		
	Camp Santiago, PR		

Proposed Dump Truck Central Purchase

2003 Ford F-550 4x4 Dump Truck

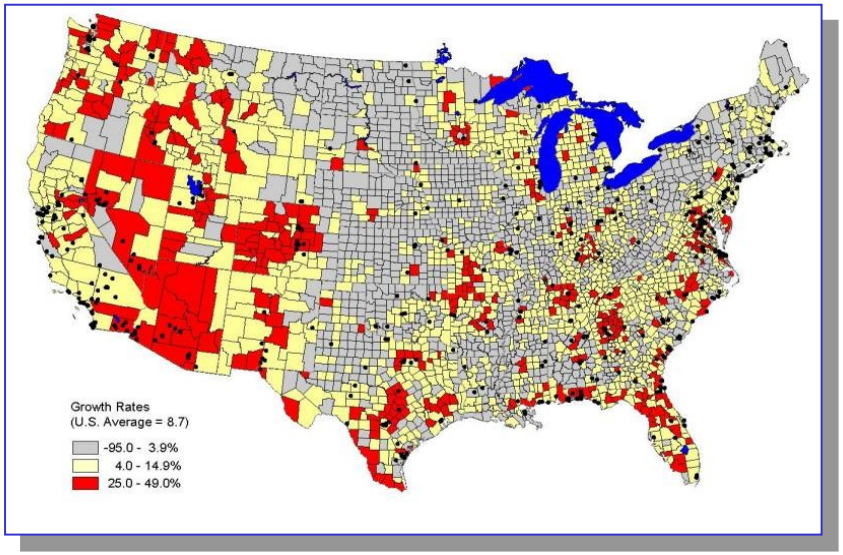
- 6.8L diesel engine
- 9,500 lb payload
- 3 yard dump size
- Automatic transmission
- Special traction differential
- All terrain tires

NGB-ART-S TENTATIVE PLAN 1 Aug 02

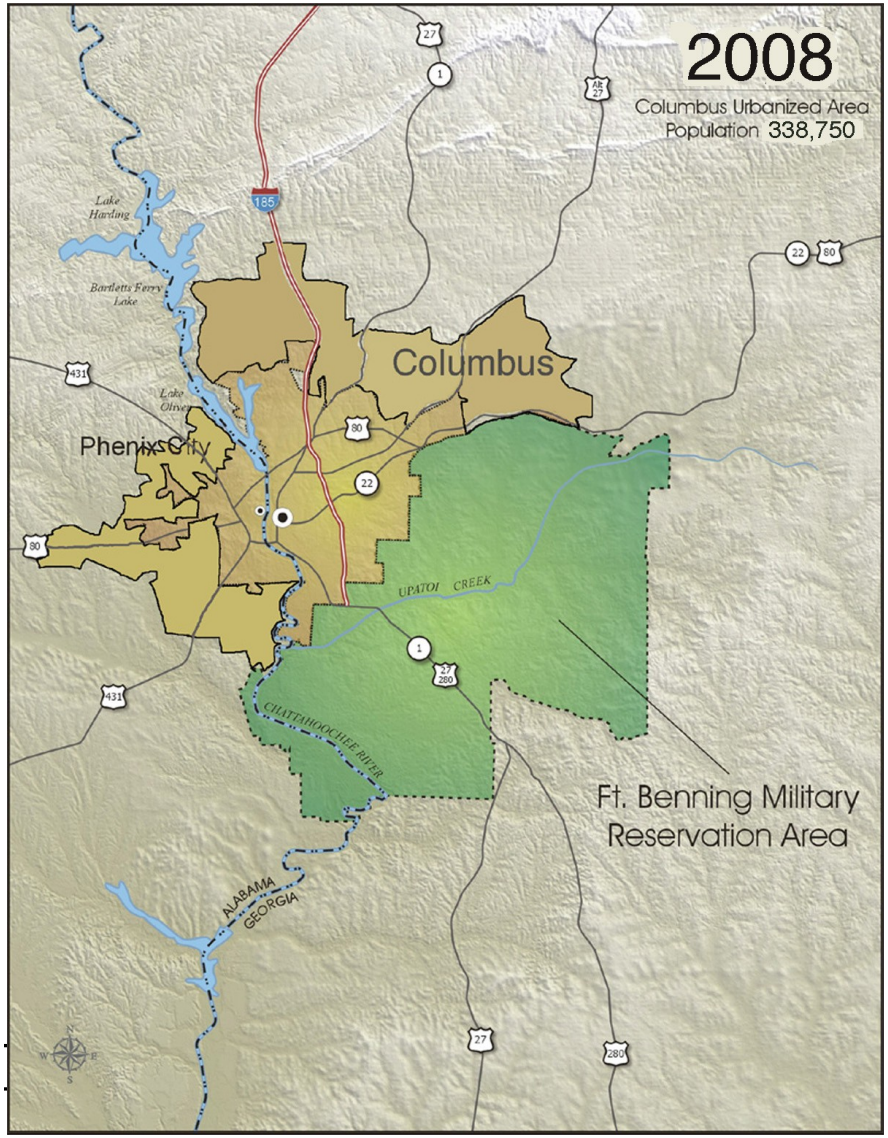
Item Name	Program	Original	Subcategory	Draft Priority	Total	Purchase
Disc	**ITAM**	Yes	LRAM Equipment	**3**	**10**	
Dozer (D-4)	**ITAM**	Yes	LRAM Equipment	**4**	**30**	
Dump Truck, Small	**ITAM**	Yes	Other Vehicles	**1**	**24**	**YEF/FY03**
Fire Management Equip	**ITAM**	Yes	Fire Management Equipment	**2**	**11**	**YEF**
Gyro Trac	**ITAM**	Yes	LRAM Equipment	**5**	**4**	**YEF**
Hydro Seeder	**ITAM**	Yes	LRAM Equipment	**2**	**12**	**YEF**
Mower	**RTLP**	Yes	Construction/Maint Equipment	**3**	**22**	
Mulcher (Straw Blower)	**ITAM**	Yes	LRAM Equipment	**8**	**8**	
Skid Steer Loader	**ITAM**	Yes	LRAM Equipment	**6**	**11**	
Tractor (Small/Med/Large)	**RTLP**	Yes	Construction/Maint Equipment	**3**	**27**	
Grass Seed Drills	**ITAM**	No	LRAM Equipment	**2**		**YEF**
Gators/ATVs	**?**	No	Maintenance/Operations	**?**	?	**?**
3/4 or 1 Ton Pickups	**?**	Yes	Maintenance/Operations	**?**	?	**?**

ENCROACHMENT

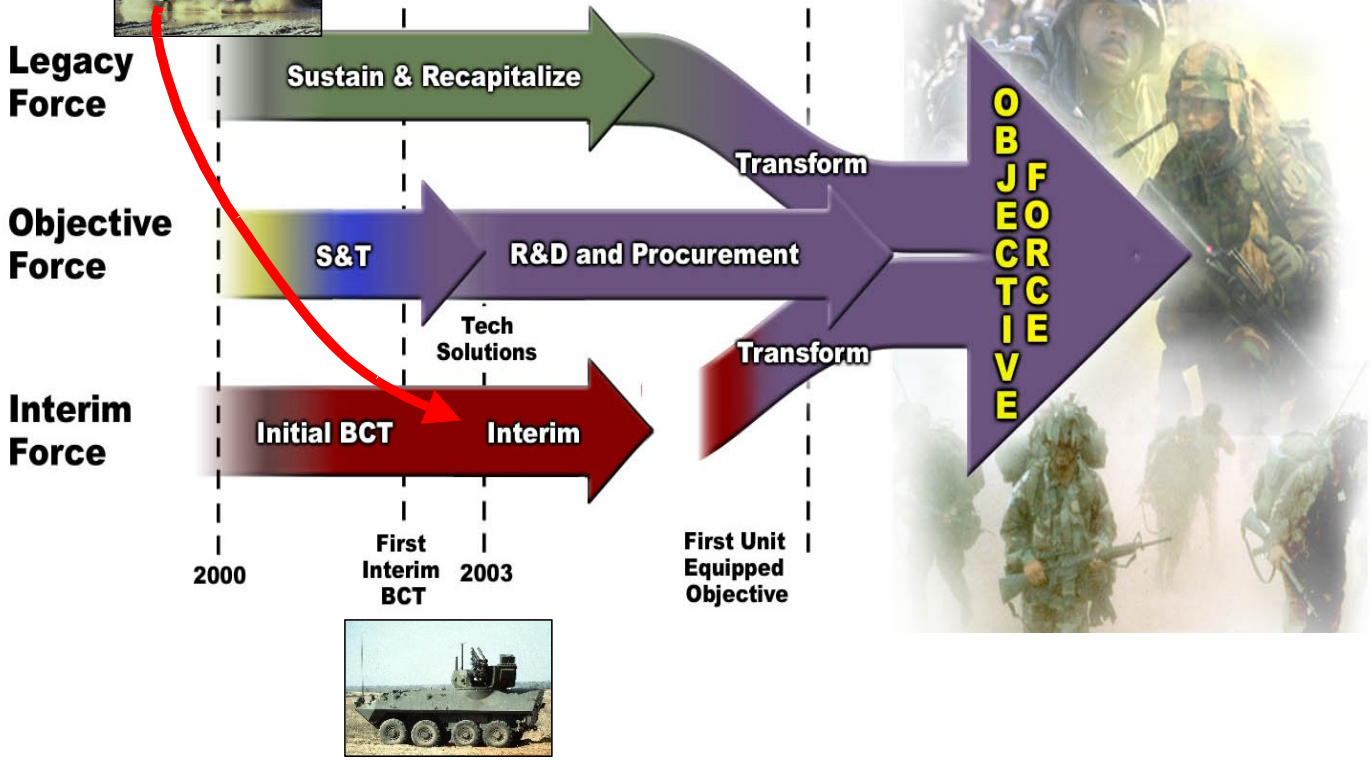
Impacts of Urban Growth
Fort Benning, GA



County Population Growth Rates
With DOD Installations

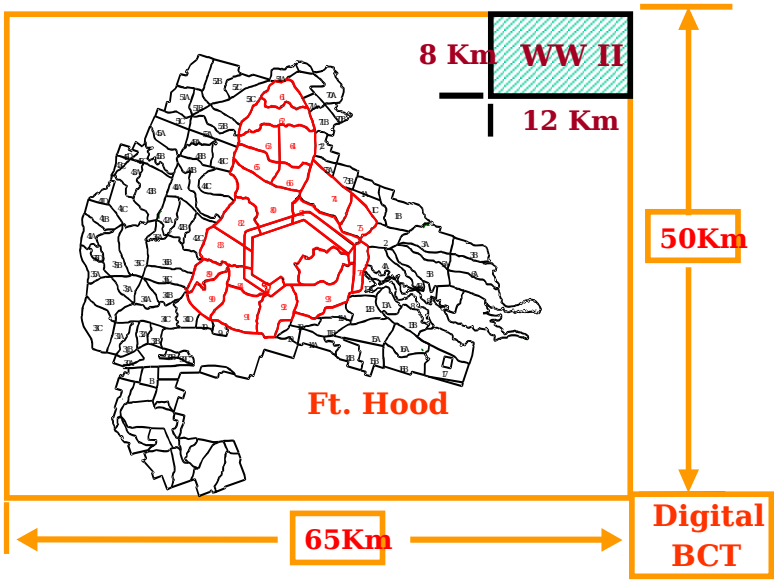


Sustainable Ranges Support Army Transformation

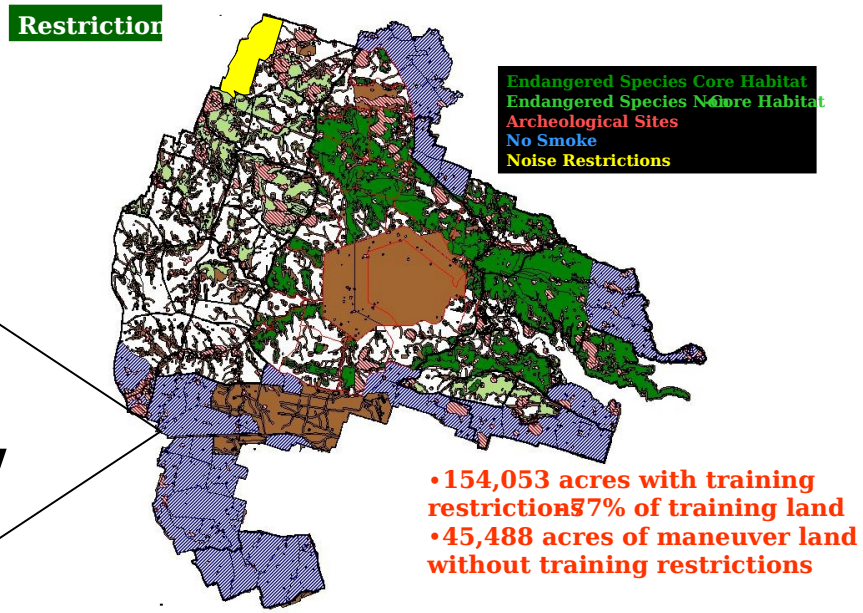


Fort Hood

The Brigade Battlefield



Increasing Doctrinal Land Requirements



- 154,053 acres with training restrictions – 77% of training land
- 45,488 acres of maneuver land without training restrictions

Decreasing Land Assets – Encroachment !

"Encroachment" of Live Training and Ranges

SROC: Senior Readiness Oversight Council

Sustainable Range Program

Three Tenets:

- **Information Excellence – best data on ran**
- **Integrated Management – multi-discipline**
- **Outreach - why we train**

- **Ranges as Training Enable**
- **Ranges as Facilities**
- **Ranges as the Environment**

Three Perspectives

GOAL: ***Maximize the capability, availability, and accessibility of ranges and training land by minimizing restrictions brought about by external factors.***

Army Range Sustainment Integtation Group: Env Issues and Ranges Affected

Range and Land Grouping	Basic Weapons Marksmanship Ranges	Collective Live-Fire/Direct-Fire Gunnery Ranges	Special and Other Live-Fire Ranges	Maneuver Training Areas	Dudded Impact Areas Including Highly Sensitive	Maneuver Training Areas	Dudded Impact Areas Including Highly Sensitive	Non-Dudded Impact Areas	Off-Post/Non-DOD Training Lands	Other Specified and Scheduled Non-firing Training Facility/Land
COMPLIANCE ISSUES										
Berms, Erosion, Collection of Lead, Soil Composite by Area of Country, Testing of BMPs, Materials, Shape	H, Bullets	H, Bullets	NA	NA	NA	NA	NA	NA	NA	NA
Erosion on Roads and Trails	NA	H	NA	H	NA	H	NA	NA	H	H (AND DROP ZONES)
Dust: Air, Water, Trees	NA	H	H	H	NA	H	NA	NA	H	H
PM2.5/10 from Smokes /Obscurants	NA	NA	NA	H	NA	H	NA	NA	H	H
Tank Hulls, Range Scrap, Lead, Copper	M, Lead	M, Lead	M, Scrap	M->H	H	M->H	H	M, Lead	M->H	M->H
Oil/Gas Spills, Mud Transfer	NA	L	NA	H	NA	H	NA	NA	H	H
Impacts from Urbanization, Noise, Fire	L, H (NGB)	H	H	M->H	M->H (Fire, Noise	M->H	M->H (Fire, Noise	L, H (NGB)	M->H	M->H
CLEANUP ISSUES										
Monitoring for Migration of Heavy Metals to Groundwater	M	M	M	NA	M	NA	M	M	NA	NA
Contaminant Migration other than Metal	L	L	M->H	NA	H	NA	H	L	NA	NA
Explosives, Contaminated Soil in Demo Areas	NA	NA	H	NA	NA	NA	NA	NA	NA	NA
Removal of Barrels, Contam. Soil on Hand Grenade Ranges	NA	NA	H	NA	NA	NA	NA	NA	NA	NA
UXO ISSUES										
UXO Detection, Cleanup, Clearance for Existing Ranges	NA	H	H	NA	H	NA	H	NA	NA	NA
UXO Detection, Cleanup, Clearance for Range Design	H	H	H	NA	H	NA	H	H	NA	NA
Maintenance/Clearance UXO in Brush	H	H	H	NA	NA (CTT only)	NA	NA (CTT only)	NA	NA	NA
DESIGN ISSUES										
Env. Compliant Design Worked into Standard Designs	H	H	H	H	H	H	H	H	H	H
Design to Allow Difference in Angle of Fire	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Changing Weapon Systems	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)	M->H (Weapon Dependant)
Durability of Battle Positions	NA	M	NA	NA	NA	NA	NA	NA	NA	NA
Controlling Access	L	L	L	L	H	L	H	L	NA	L
DOCUMENTATION ISSUES										
Supporting Economic Analysis, Manuals, Guidance	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access	H, Easy Access
Central Location for Info across Offices (TC, FM)	H (Not only RDTE)	H (Not only RDTE)	H (Not only RDTE)	H (Not only RDT&E)	H (Not only RDTE)	H (Not only RDT&E)	H (Not only RDTE)	H (Not only RDTE)	H (Not only RDT&E)	H (Not only RDT&E)
Differentiating Sources of Impact (Training)	NA	NA	NA	H	L (Cows)	H	L (Cows)	L	H	H
CONSERVATION ISSUES										
TES Encroachment on Expanding Target Areas	L	M->H	M->H	NA	H	NA	H	L	NA	NA
TES Impacts on Ranges	L	L	L	H	H	H	H	L	H	H
ATTACC-like Model for Munitions Impact based on STRAC	M->H	M->H	M->H	NA	M->H	NA	M->H	M->H	NA	NA
Encroachment onto Wetlands	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	H (Location Dependant)	NA by Provision	H (Location Dependant)
Invasive Species	L	L	L	H	NA	H	NA	L	H	H
Impacts of Other Operations (e.g., Forestry)	NA	NA	NA	H	NA	H	NA	NA	H	H
Compaction of Soils Around Hardwood Trees	NA	NA	NA	M->H Site Specific	NA	M->H Site Specific	NA	NA	M->H Site Specific	M->H Site Specific
OTHER ISSUES										
Maintenance - Shutdown Time, Personnel, Dollars	H, Beaten Area	H, Beaten Area	H	H	NA	H	NA	H, Beaten Area	H	H

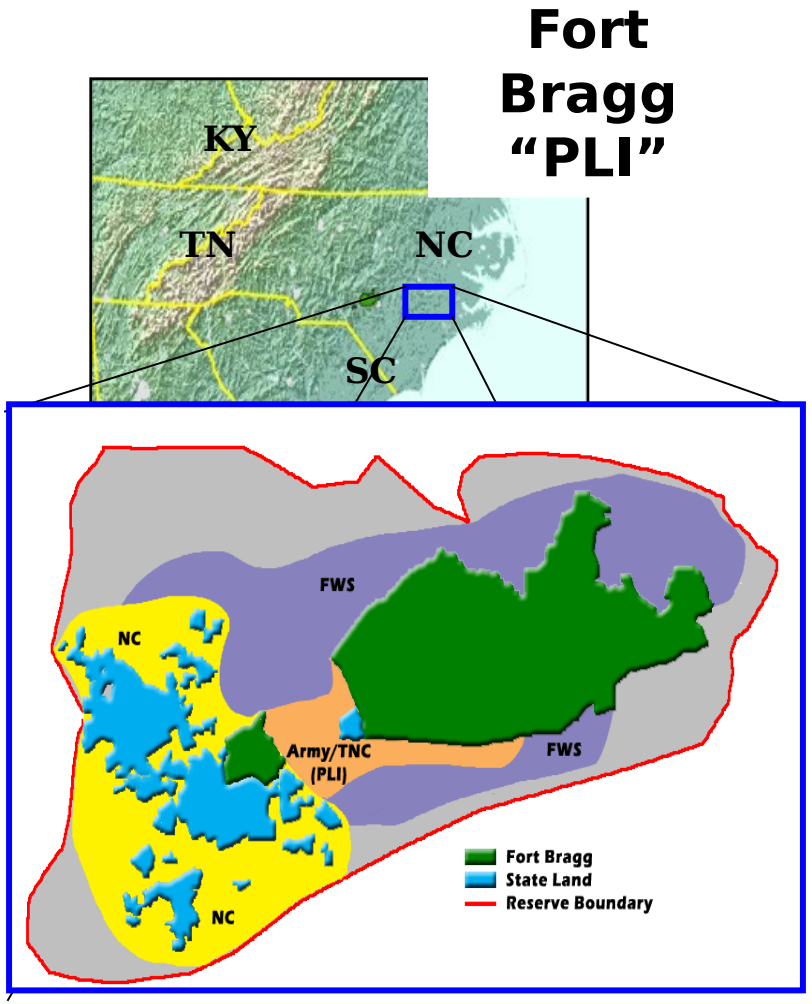
POSSIBLE TRAINING SITE/MANAGER PRIORITIES

Range Sustainment Issue
Environmental compliance worked into standard range designs
Erosion on roads and trails on your ranges and training area
Erosion problem caused by water erosion
UXO clearance on existing ranges
Controlling access to ranges and training areas
UXO detection for planned ranges/range designs
Erosion problem caused by maneuver training
ATTACC-like model for munitions based on STRAC
UXO clearance for planned ranges/range designs
UXO clearance in grassy areas on your ranges
Oil/gas spills on ranges
Range scrap a problem on your ranges

Army Urban Growth Strategy

- Work with Local Communities & NGOs to improve land use planning – Ft Bragg "Private Lands Initiative"

- Study land ownership and land use adjacent to major Army training ranges
  - Identify opportunities for cooperative land use agreements (buffers)
  - Create a strategy for Army-wide application of Fort Bragg "PLI"



Army Live Training, an Environmental Asset

Brett A. Wood[1,3,4]
Joseph M. Norberg[2,3,4]
[1]Army National Guard ITAM Program Coordinator
[2]Army National Guard ITAM Program Manager
[3]Center for the Environmental Management of Military Lands (CEMML), Colorado State University, Fort Collins, Colorado
[4]Army National Guard Training Division, Army National Guard Readiness Center, Alexandria, VA

INTRODUCTION

Why do Army training lands maintain a high biological diversity? The obvious explanations that the Army limits human damage to the land by maintaining large areas of undeveloped land cannot explain the biological diversity on Army land. Figure 2 shows that Army lands host more distinct threatened and endangered species compared with other federal landholders, all of which maintain large areas of controlled access land. Something about the Army's unique land use must be responsible for this diversity.

There are several theories that can explain the biological diversity of Army training lands. One theory is the intermediate disturbance hypothesis. This theory suggests that the "highest diversity (of species) is maintained at intermediate scales of disturbance (Connell 1978, Fox 1979) (Figure 3).

By themselves, many Army training activities, such as mechanized training, are likely not moderate. When Army training activities and Army land management programs are taken together, the total impact is likely moderate.

Succession, Disturbance and Biological Diversity.

Succession is the process by which a area subjected to an ecological disturbance returns to a stable ecological community. The disturbance can be anything altering the ecological structure of an area. Fire, lightning, storms, vehicle traffic and military camping are examples of natural and manmade disturbances.

Soon after the disturbance, "pioneer" plants that reproduce and mature quickly move in and "colonize" the disturbed area. The colonizing plant species are often considered weeds. The insects and other animals associated with these plants also move into the area.

Gradually, the pioneer species are replaced by larger species that are slower to mature and reproduce. The area eventually reaches a stable climax community which can remain relatively unchanged until another disturbance sets the ecological succession process into motion again. The climax community is often characterized by a few species maintaining their dominance by preventing other species from moving into the area, decreasing biological diversity.

The communities between the pioneer community and the climax community typically contain the highest biological diversity. Niches can overlap since no species has achieved dominant status. This lack of dominance allows new species to move into the community. Remnants of previous succession communities often exist with newly emerging species from later succession stages.

The frequency and severity of disturbances play a role in succession. Frequent or severe disturbances reduce biological diversity by pushing the community to the early stages of succession. Infrequent, weak or no disturbances reduces diversity by allowing a climax community to develop.

According to the intermediate disturbance hypothesis, disturbances of moderate severity and frequency allow the ecological community to remain in the high biological diversity middle stages of succession (Connell 1978, Fox 1979). Whenever Army live training can be shown to be a moderate disturbance, training becomes an environmental asset.

FIGURE 1. The Army Encouraging Biological Diversity! If Army live training coupled with active land management meets the definition of "intermediate disturbance" in the intermediate disturbance hypothesis, Army activities are an environmental asset because they maintain a high biological diversity.

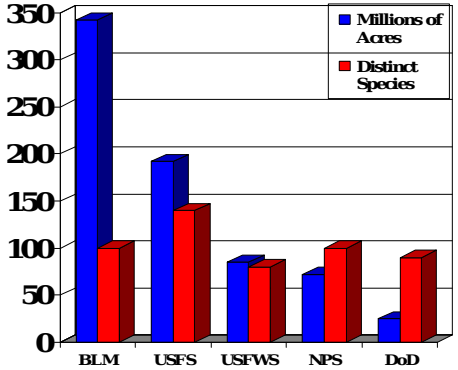


FIGURE 2. The High Concentration of Threatened and Endangered Species on Army Land Suggests Army Activities Provide Environmental Benefits. Adapted from Leslie, et al. and Army Corps of Engineers, 1996.

Army Training as a Moderate Disturbance.

The question coming from using the intermediate disturbance hypothesis to explain biological diversity on Army training lands is whether Army live training and land management practices combined are a moderate disturbance.

A weak disturbance regimen allows the disturbed area to reach a climax community. Land used for live training rarely reaches a stable, climax community. Even when land management practices actively work to mitigate training impacts, training areas rarely achieve an undisturbed state.

Training lands also rarely reach the defoliated state indicating severe disturbance. Defoliated training areas do not provide realistic training environments, are typically in violation of environmental laws and regulations, and are not consistent with the Army's commitment to environmental stewardship.

Since Army training lands rarely reach either succession extreme, it can be assumed that Army training activities and Army land management practices combined create moderate impacts maintaining the high biological diversity middle stages of succession.

Wherever Army training activities and land management practices do create moderate disturbances, the intermediate disturbance hypothesis suggests that Army activities are an environmental asset.

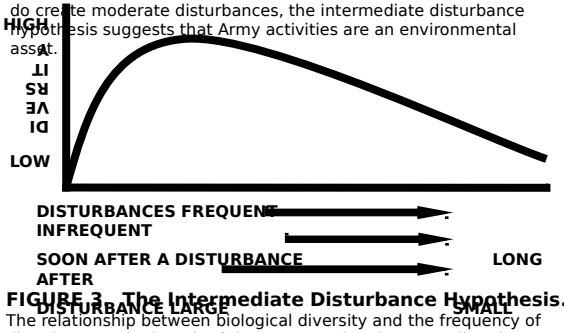


FIGURE 3. The Intermediate Disturbance Hypothesis. The relationship between biological diversity and the frequency of disturbances, the length of the recovery time between disturbances and the magnitude of disturbances (Connell 1978).

LITERATURE CITED

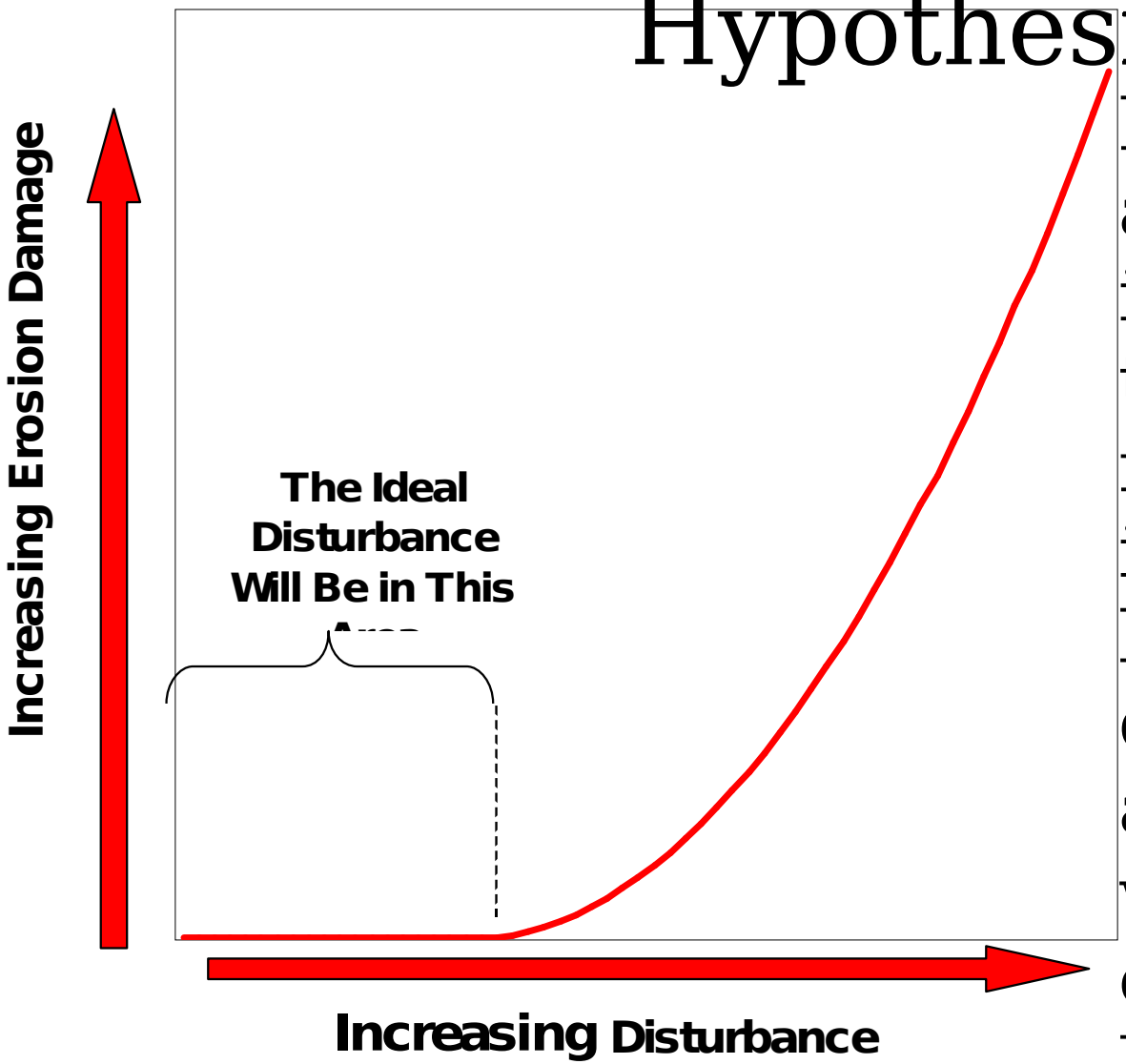
Army Corps of Engineers, 1996. Installation Summaries From the 1996 Survey of Threatened and Endangered Species on Army Lands.

Connell, J. H., 1978. Diversity in Tropical Rain Forests and Coral Reefs. Science 199: 1302-1310.

Fox, J. F., 1979. Intermediate-Disturbance Hypothesis. Science 204: 1344- 1345.

Leslie, M., G. K. Meffe, J. L. Hardesty, D. L. Adams, 1996. Conserving Biodiversity on Military Lands. Department of Defense.

Intermediate Disturbance Hypothesis



This hypothesis is applied, the ideal goal of training land rehabilitation is somewhere between no disturbance and the point where erosion becomes a self-

Intermediate Disturbance Hypothesis

Disturbances at intermediate frequency and/or intensity allow for the highest specie richness.

What Does this Hypothesis Mean to ITAM?

1. LCM curves identify training as having a negative effect. Focuses on soil disturbance, not environmental conditions (Biodiversity)

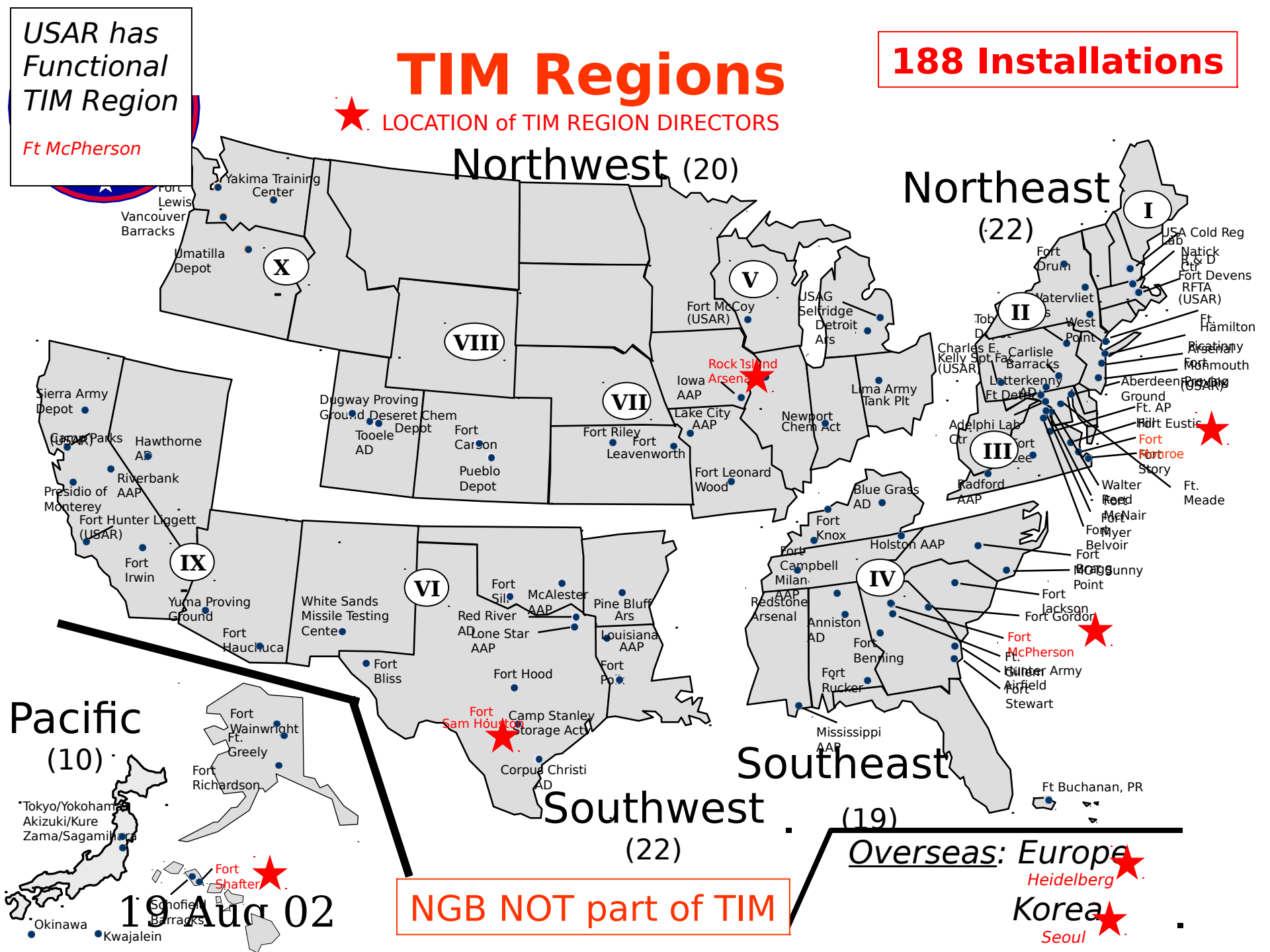
2. Army Live Training, when combined with land management is an Environmental Asset

ARMY RANGE PROGRAMS

TIM IMPLICATIONS

TIM Concept

- Establish more direct installation management command & control structure
- Centralize BASOPS based on “Regions”
- Provide equitable “standard services” across ALL installations
- “Unburden” operational commanders – Let them focus on mission
- MACOMs not in DIRECT command & control of installations

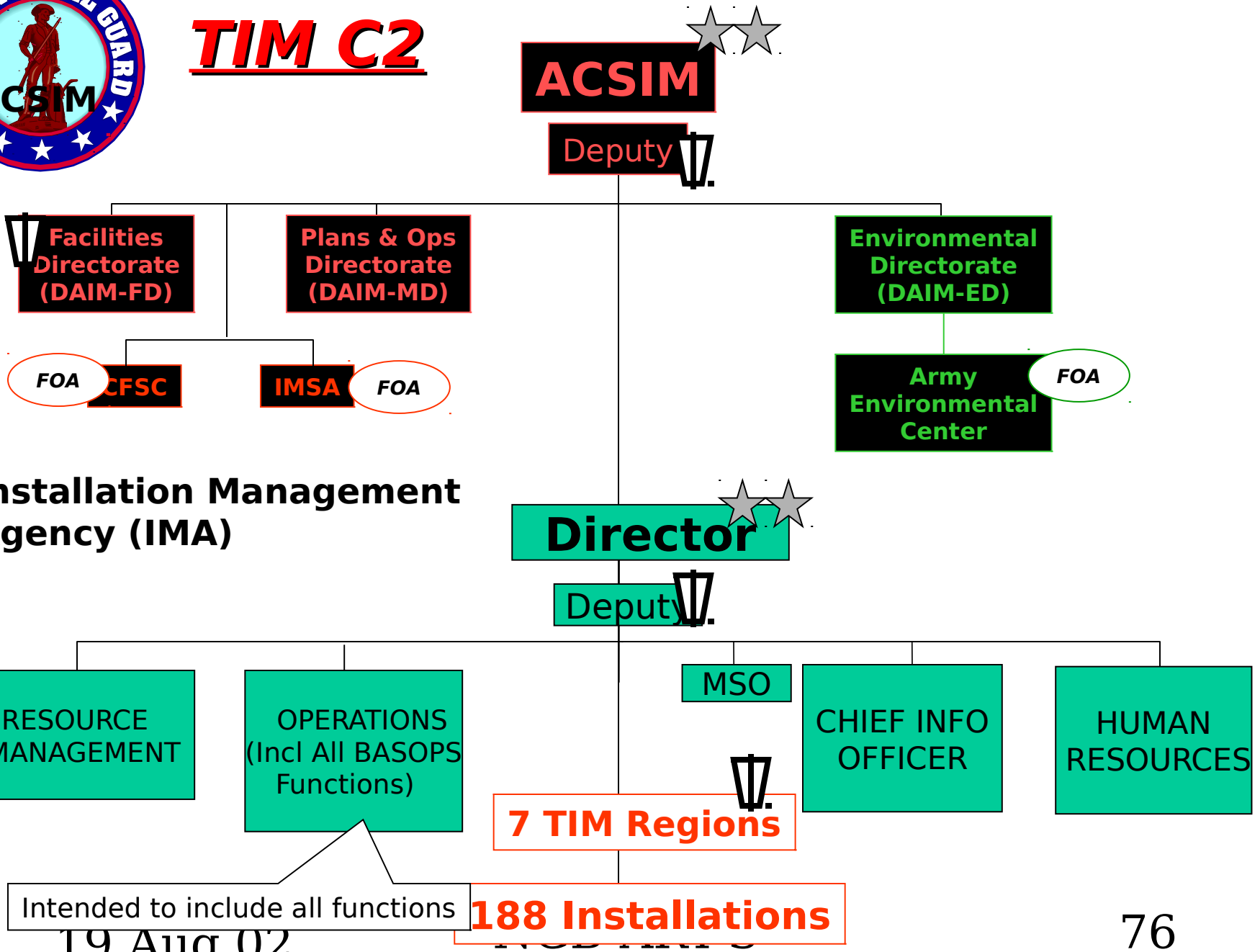

USAR has Functional TIM Region
Ft McPherson
TIM Regions
LOCATION of TIM REGION DIRECTORS
188 Installations
Northwest (20)
Northeast (22)
Southwest (22)
Southeast (19)
Pacific (10)
Overseas: Europe
Heidelberg
Korea
Seoul
NGB NOT part of TIM
19 Aug 02
I
II
III
IV
V
VI
VII
VIII
IX
X
Fort Lewis
Vancouver Barracks
Yakima Training Center
Umatilla Depot
Fort McCoy (USAR)
USAG Selfridge
Detroit Ars
Rock Island Arsenal
Iowa AAP
Lake City AAP
Lima Army Tank Plt
Newport Chem Act
Fort Riley
Fort Leavenworth
Fort Leonard Wood
Dugway Proving Ground
Deseret Chem Depot
Tooele AD
Fort Carson
Pueblo Depot
Sierra Army Depot
Hawthorne AD
Riverbank AAP
Presidio of Monterey
Fort Hunter Liggett (USAR)
Fort Irwin
Yuma Proving Ground
White Sands Missile Testing Center
Fort Huachuca
Fort Bliss
Red River AD
Lone Star AAP
McAlester AAP
Pine Bluff Ars
Louisiana AAP
Fort Polk
Fort Hood
Fort Sam Houston
Camp Stanley Storage Activ
Corpus Christi AD
Fort Wainwright
Ft. Greely
Fort Richardson
Fort Shafter
Schofield Barracks
Tokyo/Yokohama
Akizuki/Kure
Zama/Sagamihara
Okinawa
Kwajalein
Fort Drum
Natick R & D Ctr
Fort Devens RFTA (USAR)
Watervliet
West Point
Carlisle Barracks
Letterkenny AD
Ft Detrick
Aberdeen Proving Ground
Ft. AP Hill
Fort Eustis
Fort Monroe
Fort Story
Ft. Meade
Walter Reed
Fort McNair
Fort Myer
Fort Belvoir
Charles E. Kelly Spt Fac (USAR)
Adelphi Lab Ctr
Radford AAP
Blue Grass AD
Fort Knox
Holston AAP
Fort Campbell
Milan AAP
Redstone Arsenal
Anniston AD
Fort Benning
Fort Rucker
Mississippi AAP
Fort Jackson
Fort Gordon
Fort McPherson
Ft. Gillem
Fort Stewart
Ft Buchanan, PR

TIM Implementation

Approved by SA: 3 OCT 01

- "Proponents" then brought in to develop the details
- Draft O&O Plans written: DEC 01 – MAR 02
- MACOM TDA Review and adjudication: MAR 02
- Final O&O Plans written & MACOM Review: (Early Sep 02)
- Implementation Plan to SA: 31 AUG 02
- Implementation: 1 OCT 02

TIM C2

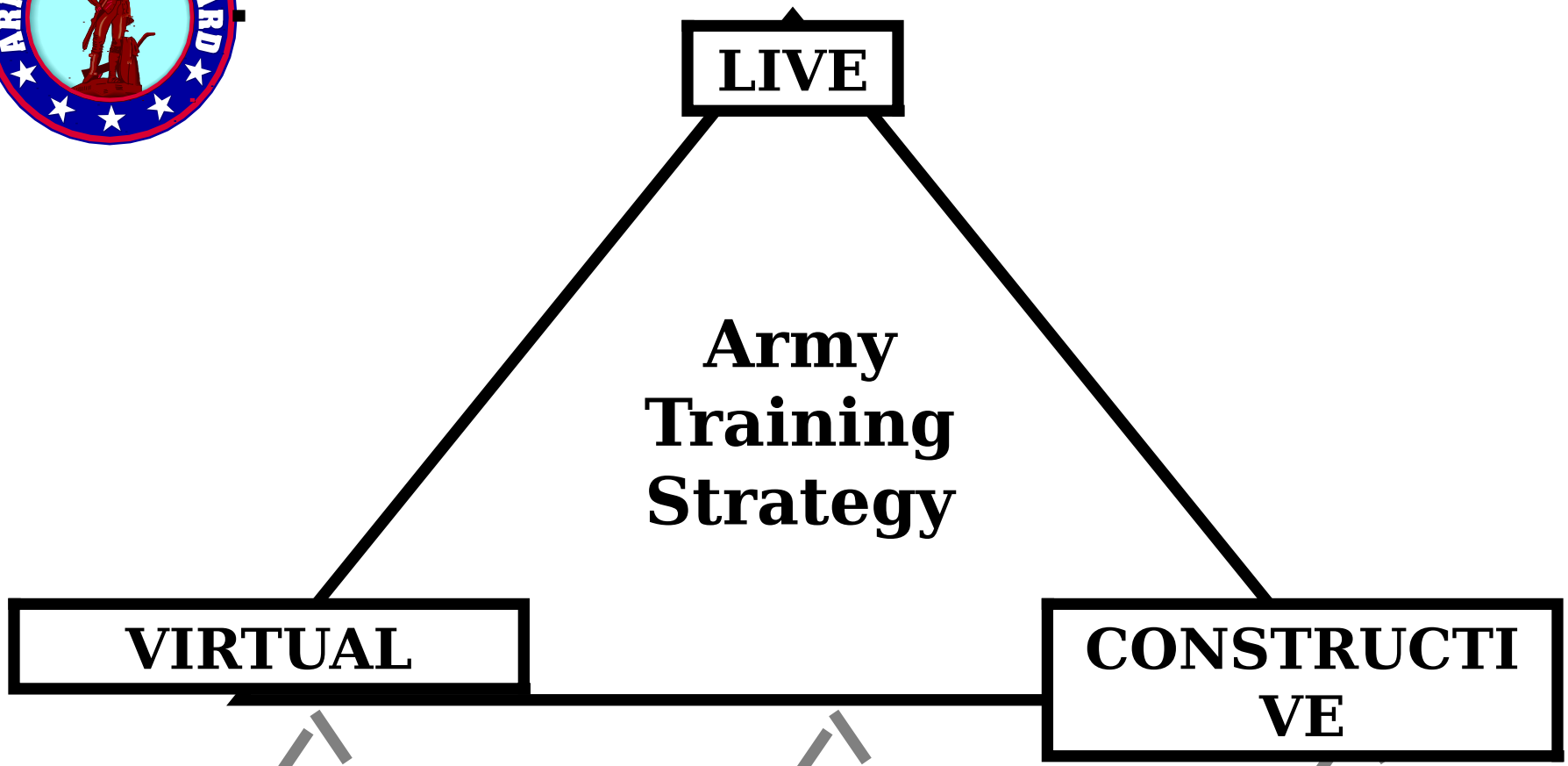

ACSIM
Deputy
Facilities Directorate (DAIM-FD)
Plans & Ops Directorate (DAIM-MD)
Environmental Directorate (DAIM-ED)
FOA
CFSC
IMSA
FOA
Army Environmental Center
FOA
Installation Management Agency (IMA)
Director
Deputy
RESOURCE MANAGEMENT
OPERATIONS (Incl All BASOPS Functions)
MSO
CHIEF INFO OFFICER
HUMAN RESOURCES
7 TIM Regions
Intended to include all functions
188 Installations

How TIM Affects ARNG?

- Senior AC Unit Cdr will not be in control
- The ARNG is a customer (Outside TIM Org)
- Past MDEPs and funding relationships will change (Training, Installation, Logistics, Environmental) will adjust/change over time
- DIR ARNG sits on TIM BOD (Customer)
- Past AC Post organization faces and spaces will change

ITAM
Integrated Training Area Management
QUALITY LANDS, QUALITY SOLDIERS
U.S. ARMY

BACKUP SLIDES


LIVE
Army Training Strategy
VIRTUAL
CONSTRUCTIVE
"TT PEG"
RANGES & LAND
"II PEG"
SRM, COMPLIANCE, CONSERVATION
"EE PEG"
SYSTEMS TRAINING DEVICES

ST	INSTALLATION	CAT	FY 03 PAFG	IWAM PROJECTS/DESCRIPTION
LA			$240,000	
	BEAUREGARD	III		LABE-0027 40K, LABE-0029 50K,
	MINDEN	III		LAMI-0027 40K, LAMI-0030 50K,
	VILLERE	IV		LAVI-0032 60K
MA			$40,000	
	EDWARDS	III		MAED-0126 18K, MAED-0127 7K, MAED-0143 2K, MAED-0105 5K, MAED-0140 8K
MD			$21,000	
	LIL AARON STRAUS	IV		MDBA-0009 10K, MDBA-0008 1K, MDBA-0012 3K, MDBA-0003 5K, MDBA-0004 2K
ME			$125,000	
	BOG BROOK/DEEP WOODS	III		MEBB-0017 50K, MEBB-0007 40K, MECL-0003 19K, MECL-0004 16K
	CASWELL/LORING	IV		
MI			$235,000	
	GRAYLING	II		MIGR-02-34 25K, MIGR-0005 10K, MIGR-0327 50K, MIGR-0325 15K, MIGR-0315 75K,
	CUSTER	III		MICU-0304 18K, MICU-0312 42K
MN			$410,000	
	RIPLEY	I		MNRI-0315 26K, MNRI-0323 43K, MNRI-0327 159K, MNRI-0303 10K, MNRI-0304 60K, MNRI-0312 5K
				MNRI-0314 2K, MNRI-0305 5K, MNRI-0318 75K, MNRI-0329 25K
MO			$205,000	
	CROWDER	III		MOCR0010 5K, MOCR0019 10K, MOCR0060 10K, MOCR0063 50K, MOCR0047 15K
	MACON	IV		MOMA0011 20K, MOMA0060 10K,
	WAPPAPELLO	IV		MOWA0002 5K, MOWA0004 15K, MOWA0060 5K, MOWA0067 20K
	CLARK	IV		MOCL0005 15K, MOCL0032 25K
MS			$524,000	
	SHELBY	I		MSSH-0006 35K, MSSH-0010 62K, MSSH-0012 50K, MSSH-0016 50K, MSSH-0021 200K,
				MSSH-0002 10K, MSSH-0007 14K
	MCCAIN	III		MSMC-0001 75K, MSMC-0002 28K
MT			$105,000	
	LIMESTONE HILLS	III		MTLI-0301 4K, MTLI-0310 3K, MTLI-0302 7K, MTLI-0314 15K, MTLI-0313 3K, MTLI-0308 13K
				MTLI-0318 5K, MTLI-0306 25K
	HARRISON	IV		MTHA-0301 4K, MTHA-0302 7K, MTHA-0305 10K, MTHA-0307 5K, MTHA-0309 4K
NC			$21,000	
	BUTNER	IV		NCCB-0025 10K, NCCB-0001 5K, NCCB-0002 5K, NCCB-0005 1K
ND			$103,000	
	GRAFTON	III		NDGR-0007 32K, NDGR-0012 16K, NDGR-0015 45K, NDGR-0018 5K, NDGR-0008 5K
NE			$65,000	
	HASTINGS/ASHLAND	IV		NEHACA-0001 47K, NEHA-0004 18K
NH	STRAFFORD LANDING		$10,000	NHSL-0001 10K
NM			$75,000	
	CAMEL TRACKS	III		NMCT-0016 30K, NMCT-0010 20K
	ROSSWELL	IV		NMRO-0010 15K, NMRO-0012 10K
NV			$15,000	
	STEAD	IV		NVST-0001 15K
NY			$21,000	
	SMITH	IV		NYSM-0012 10K, NYSM-0015 11K
OH			$103,000	
	REVENNA TNG/LOG SITE(Perry)	III		OHCPRA-0403 50K, OHCP-0103 2K, OHCPRA-0803 31K, OHCPRA-1103 10K, OHCPRA-1203 10K

ST	INSTALLATION	CAT	FY 03 PAFG	IWAM PROJECTS/DESCRIPTION
OK			$195,000	
	GRUBER	II		OKGR-001 55K, OKGR-036 25K, OKGR-012 70K, OKGR-058 10K, OKGR-060 7K, OKGR-026 3K,
				OKGR-024 25K
OR			$206,000	
	CENTRAL OREGON	III		ORBI-0001 10K, ORBI-0004 5K, ORBI-0005 25K, ORBI-0002 30K, ORBI-0009 10K, ORBI-0010 23K
	RILEA	III		ORRI-0001 25K, ORRIAD-01 10K, ORRI-0012 20K, ORRI-0017 15K, ORRI-0007 33K
PA			$270,000	
	INDIANTOWN GAP	II		PAIN-0333 85K, PAIN-0340 55K, PAIN-0351 70K, PAIN-0308 30K, PAIN-0310 30K
PR			$73,000	
	SANTIAGO	III		PRSA-0010 50K, PRSA-0011 23K
SC			$95,000	
	MCCRADY (Leesburg)	III		SCLE-030019 50K, SCLE-0021 45K
TN			$63,000	
	CATOOSA	IV		TNCA-0302 21K
	MILAN	IV		TNMI-0301 10K, TNMI-0302 5K, TNMI-0303 6K
	TULLAHOMA	IV		TNTU-0301 21K
TX			$195,000	
	BOWIE	III		TXBO-0301 15K, TXBO-0303 8K, TXBO-0305 30K, TXBO-0307 2K, TXBO-0312 35K, TXBO-0326 32K
	MAXEY	IV		TXMA-0301 21K
	SWIFT	IV		TXSW-0301 3K, TXSW-0305 5K, TXSW-0303 23K
	WOLTERS	IV		TXWO-0302 21K
UT			$95,000	
	WILLIAMS	III		UTWI-0001 30K, UTWI-0002 31K, UTWI-0012 34K
VA			$445,000	
	PICKETT	I		VAPI-0017 150K, VAPI-0045 10K, VAPI-0046 15K, VAPI-0019 60K, VAPI-0014 30K, VAPI-0015 4K,
				VAPI-0033 4K, VAPI-0039 73K, VAPI-0072 70K, VAPI-0002 20K, VAPI-0024 9K
VT			$85,000	
	E. ALLEN	III		VTET-0002 20K, VTET-0014 17K, VTET-0022 10K, VTET-0025 5K, VTET-0030 5K, VTET-0004 6K
				VTET-0032 10K, VTETCJ-0036 6K, VTET-0020 6K,
WI			$16,000	
	WISMER	IV		WIWI-0014 10K, WIWIMA-0014 5K, WIWI-0013 1K
WV			$105,000	
	DAWSON	III		WVDA-0004 95K, WVDA-0006 9K, WVDA-0018 1K
WY			$103,000	
	GUERNSEY	III		WYGU-LRAM5 22K, WYGU-LRAM4 81K
	TOTAL 03 APPN		**$6,638,974**	(Cat I $25K; Cat II $20K; Cat III $15K; Cat IV $10K more than FY02 Distribution)

RSIG Mission Weighting

MACOM	MANEUVER IMPACT MIMs	Percent	TNG & TESTING LAND COMPLEX KACRES	Percent	MUNITIONS EXP-ENDED	Percent	AVER PERCENT	RSIG WEIGHT
ATEC	300	0.0%	4,070.0	34.9%		0.0%	11.6%	**9**
FC	3,698,755	42.0%	2,219.9	19.0%		40.3%	33.8%	**30**
NGB	2,815,838	32.0%	1,281.3	11.0%		18.6%	20.5%	**20**
TR	625,687	7.1%	1,616.0	13.9%		17.4%	12.8%	**10**
PAC	91,386	1.0%	1,788.1	15.3%		4.2%	6.9%	**7**
EUR	795,274	9.0%	124.2	1.1%		13.0%	7.7%	**8**
AMC	9,276	0.1%	132.0	1.1%		0.0%	0.4%	**1**
EUSA	360,470	4.1%	47.1	0.4%		4.9%	3.1%	**2**
MDW	14,045	0.2%	75.9	0.7%		0.2%	0.3%	**1**
MEDCOM	3,384	0.0%	32.3	0.3%		0.2%	0.2%	**1**
USARC	383,471	4.4%	259.1	2.2%		1.3%	2.6%	**2**
USMA	575	0.0%	12.4	0.1%		0.0%	0.0%	**0**
Sub-Totals	771,220	8.8%	558.8	4.8%		6.6%	6.7%	**7**
Total	8,798,462	100%	11,658.3	100%		100%		**94**

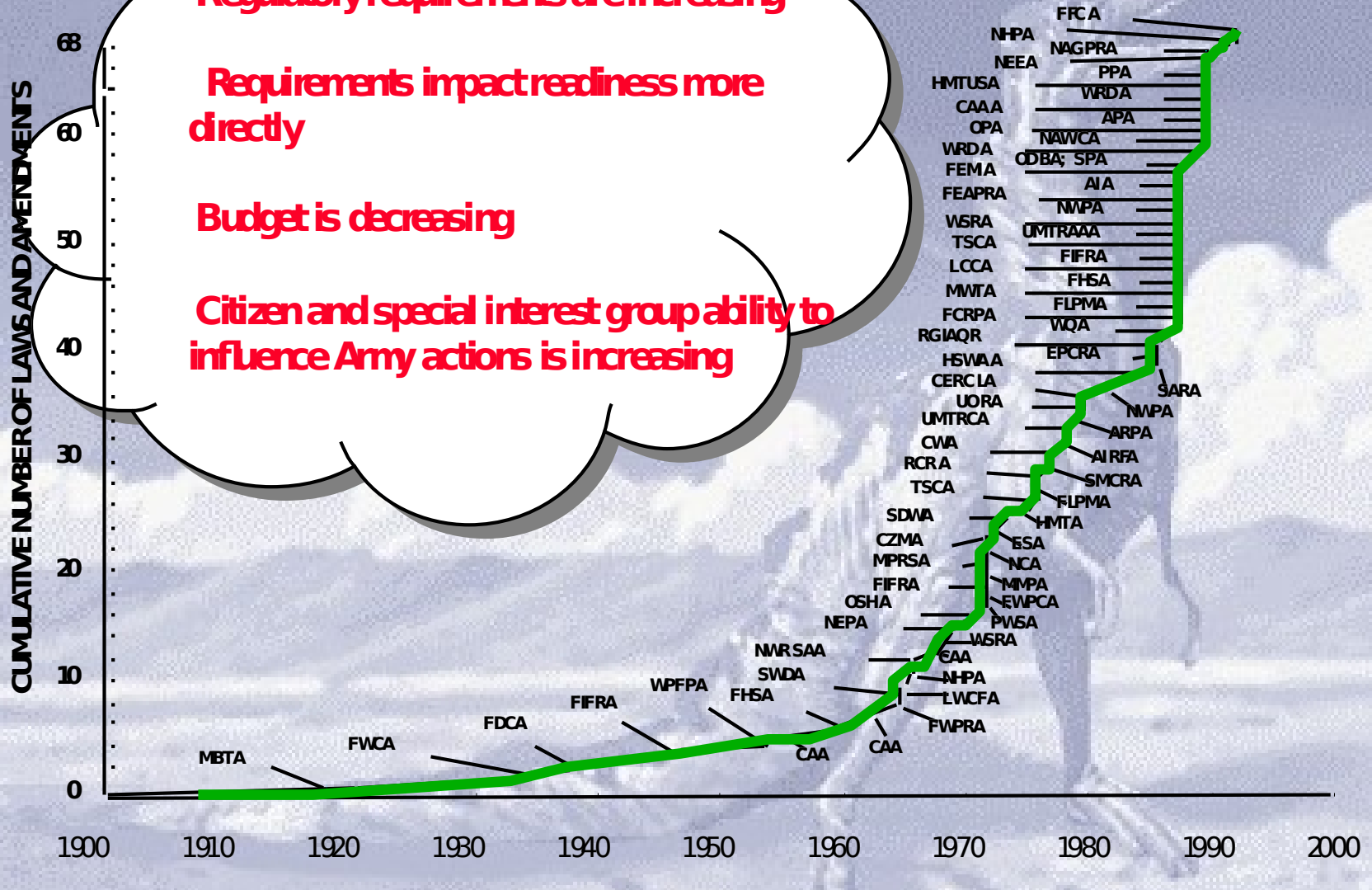
Environmental Legislation & Interest

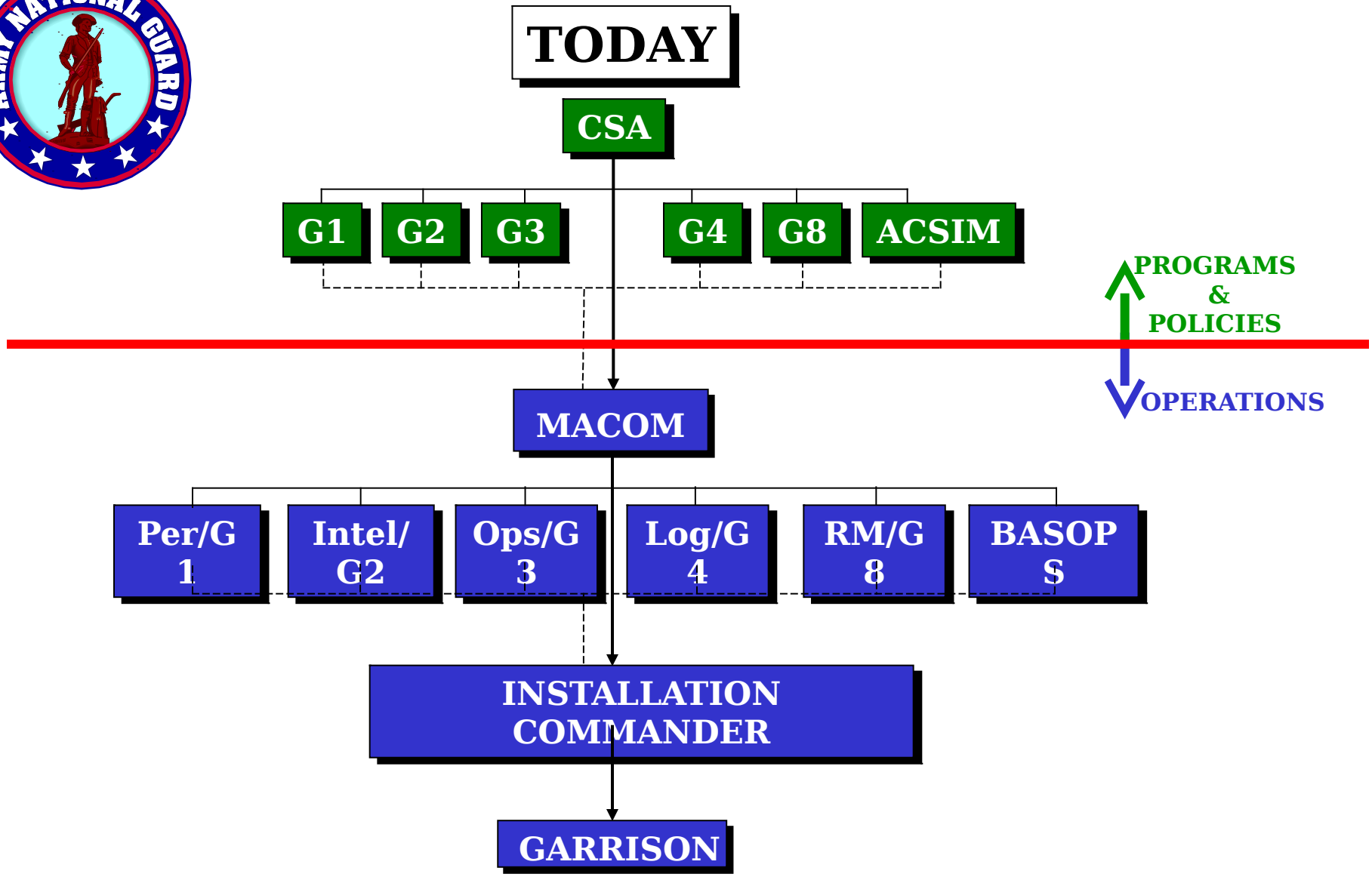
Regulatory requirements are increasing

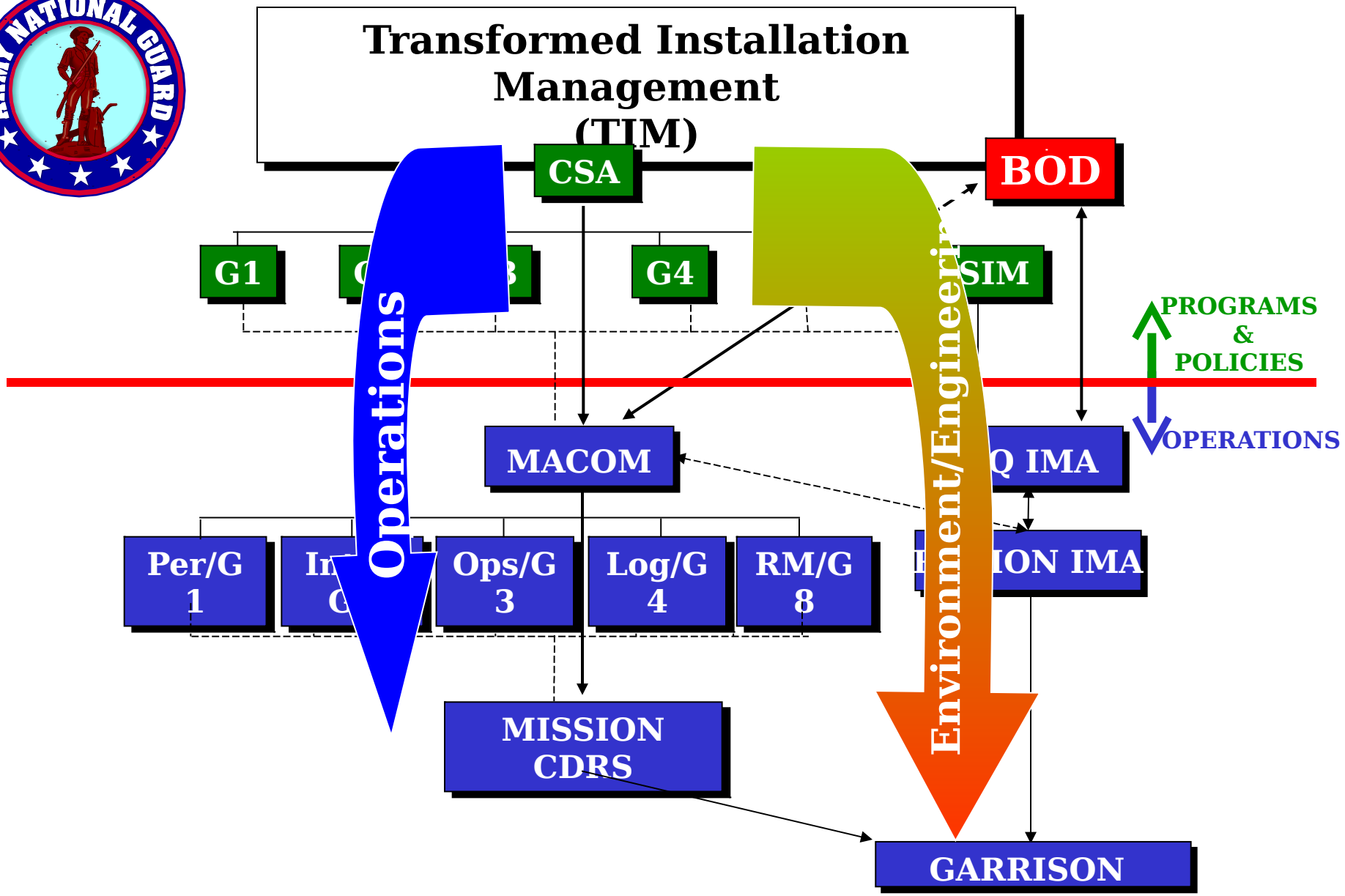
Requirements impact readiness more directly

Budget is decreasing

Citizen and special interest group ability to influence Army actions is increasing




TODAY
CSA
G1
G2
G3
G4
G8
ACSIM
PROGRAMS
&
POLICIES
OPERATIONS
MACOM
Per/G
1
Intel/
G2
Ops/G
3
Log/G
4
RM/G
8
BASOP
S
INSTALLATION
COMMANDER
GARRISON


Transformed Installation Management (TIM)
CSA
BOD
G1
G4
SIM
PROGRAMS & POLICIES
OPERATIONS
Operations
Environment/Engineering
MACOM
Per/G 1
Ops/G 3
Log/G 4
RM/G 8
MISSION CDRS
GARRISON

Installation Workplan Analysis Module
IWAM

Monday, 19 Aug 02

Savannah Room C

1300-1700

IWAM AGENDA

1300-1310 Brief Overview of IWAM

1310-1315 Discuss Objective of Workshop

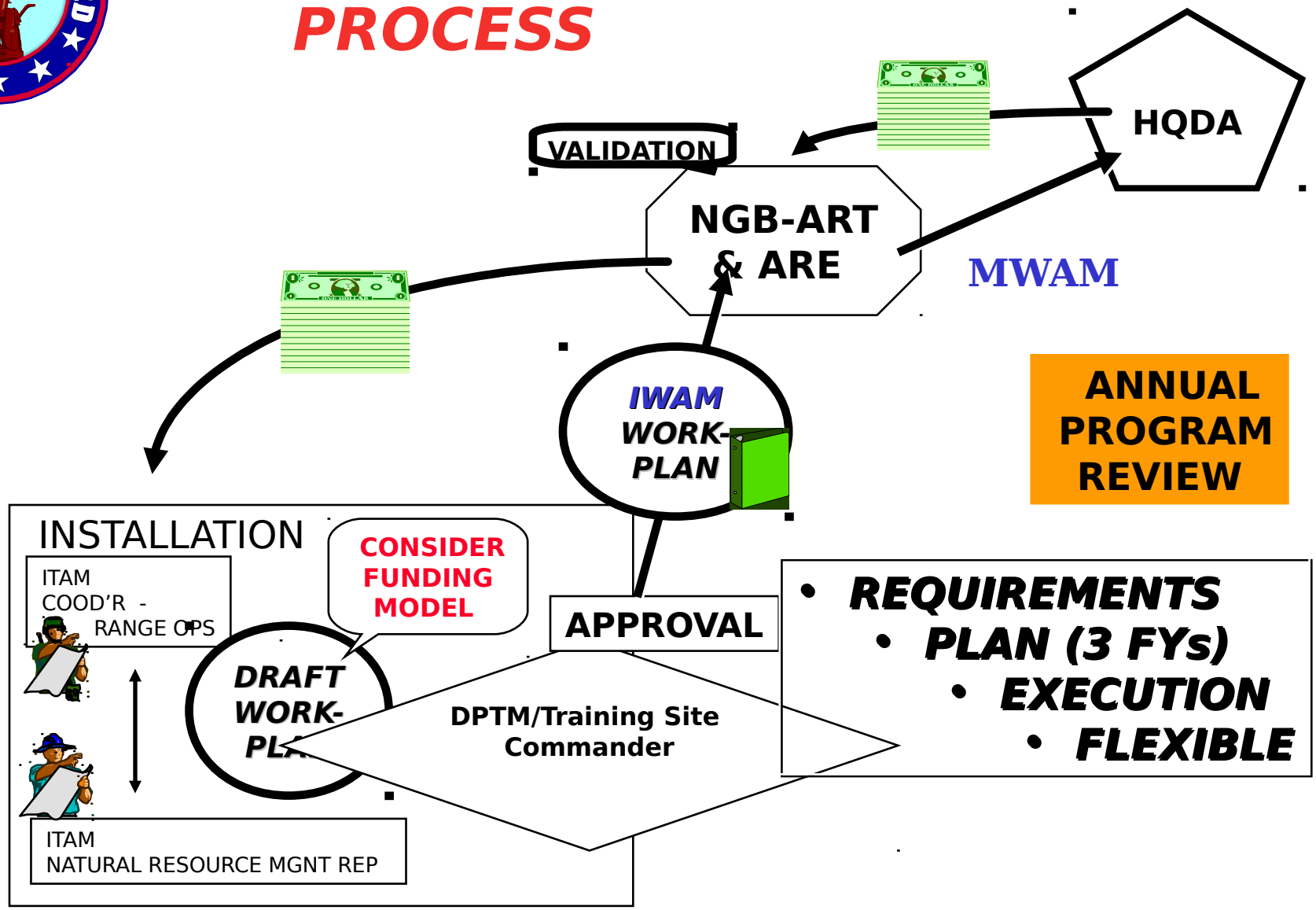
1315- 1320 Discuss Examples in Appdx G & H

1320-1345 Discuss IWAM Technical Challenges and Solutions

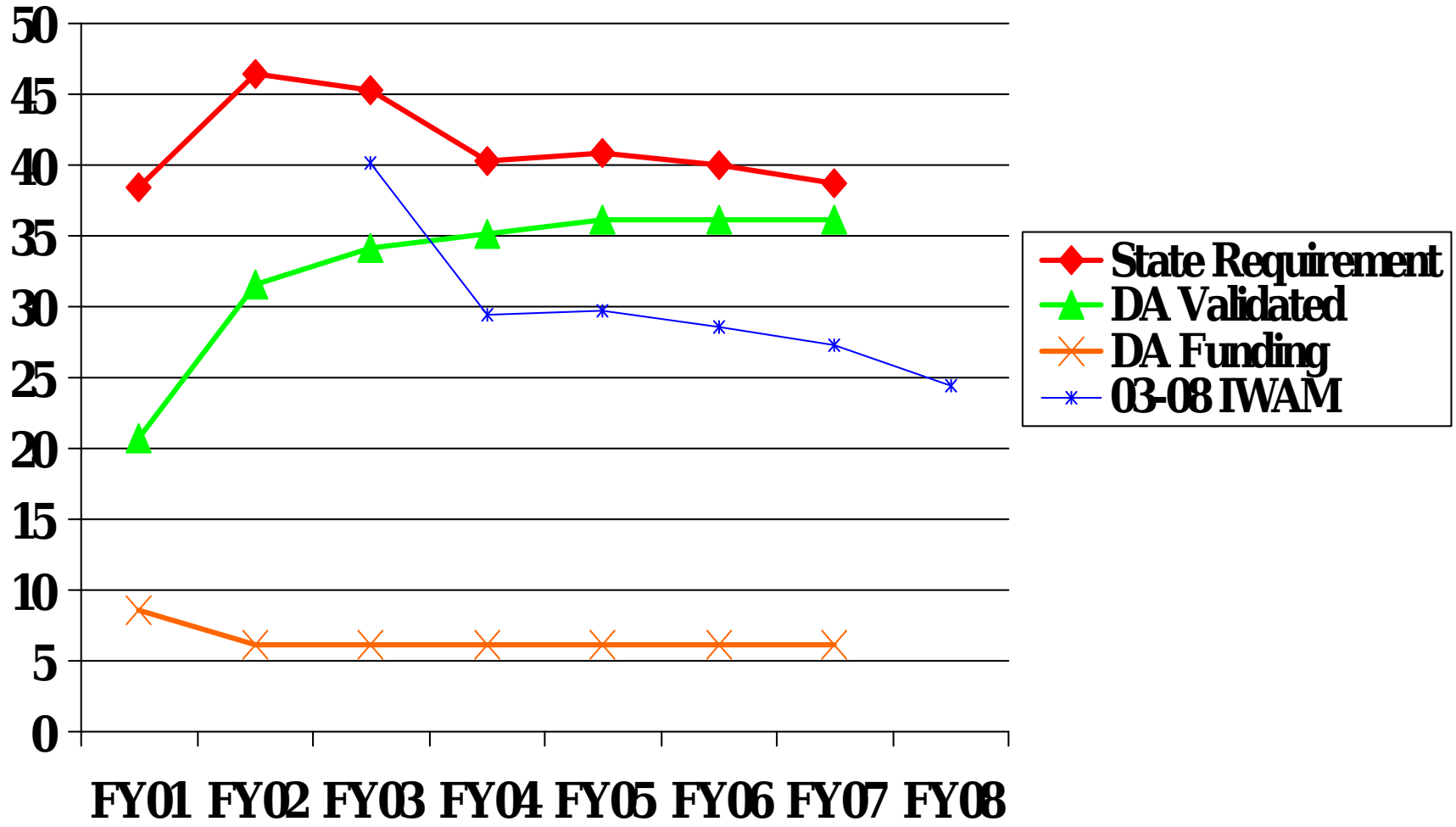
1345-1400 Fix Computer Problems

1400-1700 Develop on Individual Training Site Workplans (On the Spot Validation)

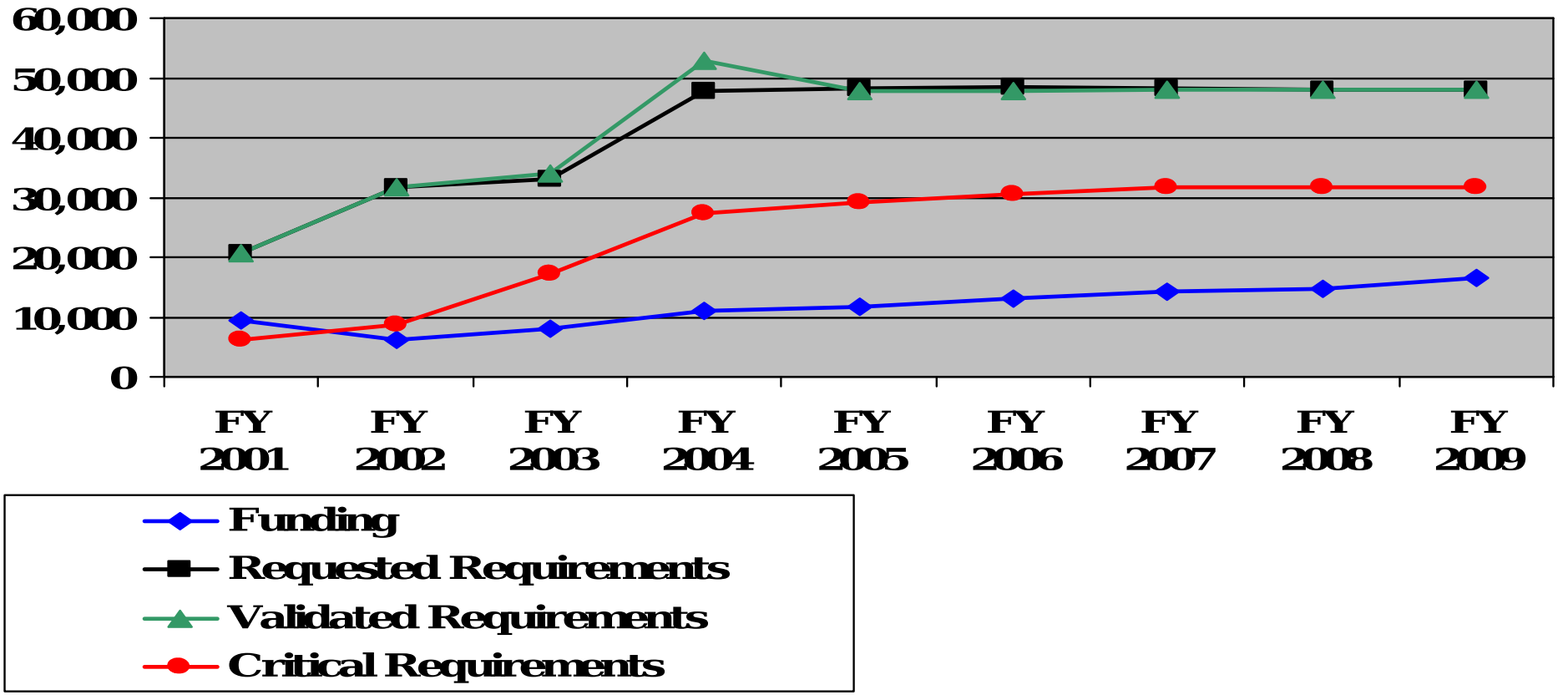
WORKPLAN PROCESS



FY 03-08 IWAM Submission



	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
Requested Requirements	20,742	31,652	33,098	47,799	48,286	48,403	48,240	47,987
Validated Requirements	20,742	31,652	33,998	52,799	47,846	47,893	47,940	47,987
Critical Requirements	6,264	8,770	17,263	27,351	29,196	30,576	31,691	31,722
Funding	9,428	6,110	8,115	11,112	11,720	13,148	14,246	14,761
Deltas								
Funding shortfall from Requested Req.	(11,314)	(25,542)	(24,983)	(36,687)	(36,566)	(35,255)	(33,994)	(33,226)
Funding shortfall from Validated Req.	(11,314)	(25,542)	(25,883)	(41,687)	(36,126)	(34,745)	(33,694)	(33,226)
Funding shortfall from Critical Req.	3,164	(2,660)	(9,148)	(16,239)	(17,476)	(17,428)	(17,445)	(16,961)
Percentages								
Percent of Requested Req Funded	45.5%	19.3%	24.5%	23.2%	24.3%	27.2%	29.5%	30.8%
Percent of Validated Req Funded	45.5%	19.3%	23.9%	21.0%	24.5%	27.5%	29.7%	30.8%
Percent of Critical Req Funded	150.5%	69.7%	47.0%	40.6%	40.1%	43.0%	45.0%	46.5%

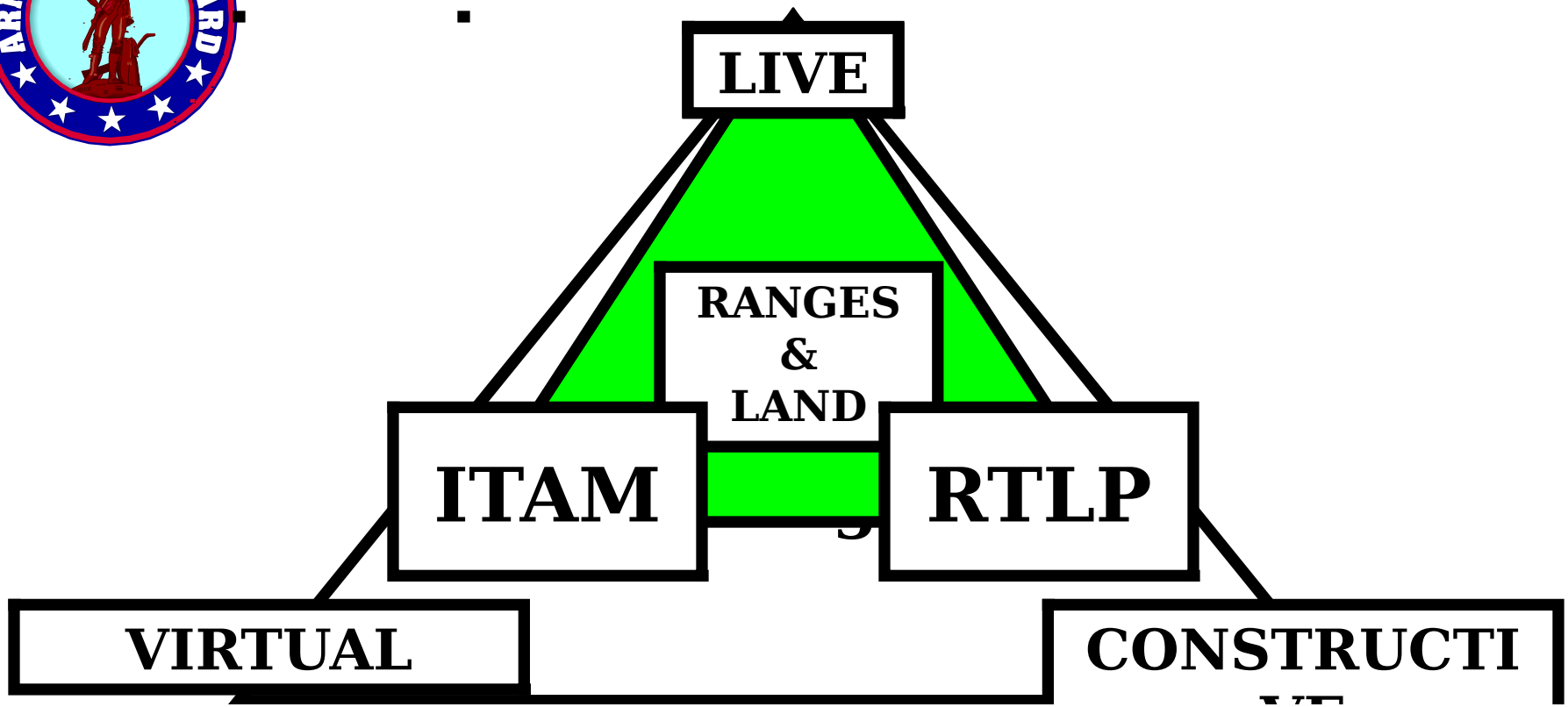


Program Funding

	FY 2001	FY 2002	FY 2003	FY 2004
Funding (Millions $)	9.428	6.110	8.115	11.112

	FY 2005	FY 2006	FY 2007	FY 2008
Funding (Millions $)	11.720	13.148	14.246	14.761

ITAM FUNDING



We must conduct live training events to standard and on ranges built to Army standards to ensure soldier and unit readiness while providing for the stewardship of our

IWAM Build

- Completed IWAM due to NGB **15 Jan 04**
- ATSC has a contract for Web Version ???
  - But no Maintenance Contract
  - ATSC POC Mr. Larry Jantz (757) 878-3090
- Projects for **FY 04-09** need to:
  - Be detailed
  - Follow Appendix G & H of ITAM Procedural Manual
  - Coordinate with other staff / ask for needs

APPDX G & H EXAMPLES

- Capping Archaeological Sites
- Fencing
- Fire Pre-suppression
- Vehicles
- Non vehicle equipment
- Planning
- etc.